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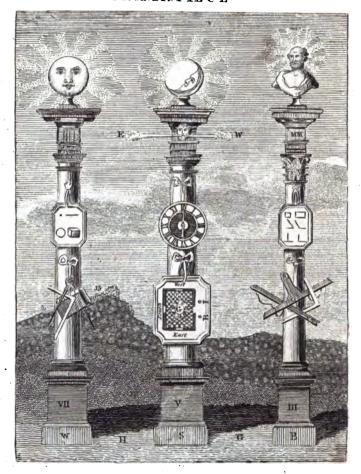


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INTRODUCTION.

TOTWITHSTANDING there are many Volumes already extant on the subject of Architecture, yet as not one of them is made a fit size for the Pocket; and it being an impossibility for the general. part of Workmen to retain and carry in their minds all the useful Rules and Proportions by which works in general are performed, I have therefore, at the request of many good Workmen, and for the sake of young Students, compiled this Work; wherein I have reduced the whole to such short and easy Rules, that the Workman may not only at the first view renew his Memory, as occasion may require, but Apprentices (who may be absolutely unacquainted withthis noble Art, and bound to Jobbing Masters who know but little) may, without the help of any, by assiduous application at their leisure hours, in Evenings when the business of the Day is over, &c. make themselves such Masters herein that few Masters are able or willing to make them. And indeed I must own, that 'tis a pleasure to me, to see the spirit of emulation so powerful among young Builders at this time, when every one of sense is endeavouring to become excellent in his Way, and useful to his country.

It is useful Knowledge only that makes one Man more valuable than another, and especially that part of Knowledge which immediately concerns the business he is to live by; and therefore, if this work should prove a help to the Improvement of Knowledge in Youth (for whose sakes 'tis chiefly intended,) and be no affront to the sage Workman, by re-informing him of those Rules which have slipt his Memory, and informing him of others which he never knew, it will answer the desired end of their hearty well-wisher,

THOMAS LANGLEY.

to divide their respective heights. And, first, of the Mouldings on the Plinths of the several Pedestals.

The Divisions of Mouldings on the Plinths of Pedestals explained.

RULE. I. To divide the heights of the Mouldings on the Plinth of the Tuscan Pedestal. Plate I. Divide the height in 6, as at B, give the under and upper ones to the fillets, and the middle of 4 to the cima-recta.

RULE II. To divide the heights of the Mouldings on the Plinth of the Dorick Pedestal. Plate X. Divide the height in 4 parts, as at B; give the upper one to the Cavetto; half the next to its fillet; half the lower one to the lower fillet, and the remains to the cima-recta.

RULE III. To divide the heights of the Mouldings on the Plinth of the Ionick Pedestal. Plate XXI. Divide the height in 2, as at B; and each in 4; give the upper 1 and half to the Cavetto; the next half to its fillet; the next 1 to the Astragal; the lower 1 to the fillet, and the remains to the cima.

RULE IV. To divide the heights of the Mouldings on the Plinth of the Corinthian Pedestal. Plate XXXIX. Divide the height in 4, as at B; the upper 1 and 3d downwards, each in 3; give the upper 1 and half to the cavetto; the next half to the fillet; the next 1 to the astragal; the lower 4th to the height of the torus, and one third of the next to its fillet.

RULE V. To divide the heights of the Mouldings on the Plinth of the Composite Pedestal. Plate LVII. Divide the height in 4; and the upper and third part downwards, each in 3; give the upper 2 of the upper part to the Cavetto; the next to its fillet; the lower 4th part to the torus, and one third of the next part to its fillet.

The Division of Mouldings in the Cornices of Pedestals explained.

RULE I. To divide the heights of the Mouldings contained in the cornice of the Tuscan Pedestal. Plate I. Divide the height, as at A.

in 6 parts; give the upper 1 to the regula; the next 3 to the platband, and the lower 2 to the cima-reversa.

RULE II. To divide the heights of the Mouldings contained in the cornice of the Dorick Pedestal. Plate X. Divide the height, as at A, in 4; give half the upper 1 to the regula; the next 1 and half to the plat-band; the next 1 to the ovolo; the upper one third of the lower 1 to the fillet, and the remaining two thirds of the lower 1 to the cavetto.

RULE III. To divide the heights of the Mouldings contained in the cornice of the Ionick Pedestal. Plate XXI. Divide the height in 12 parts, as at A; give the upper one to the regula; the next 2 to its cima-reversa; the next 3 to the plat-band; the next 3 to the ovolo; the next 1 to the astragal; half the next 1 to its fillet, and the remains 1 and a half to the cavetto.

RULE IV. To divide the heights of the Mouldings contained in the cornice of the Corinthian Pedestal. Plate XXXIX. Divide the height in 3, as at A; also the upper 1 in 6, the lower half of the middle 1 in 3, and the lower half of the lower 1 in 3. Of the 6 upper small parts, give the upper 1 and one third to the regula; the remaining two thirds and two parts to the cima-reversa, and the next 1 to the astragal. Give the last 1, and half the middle great part, to the plat-band: Also one third of the remaining half to the fillet on the cima-recta; and the remaining two thirds, and upper half of the lower great part, to the cima-recta. Lastly, give the upper 1 part of the half of the lower part, to the astragal; half the next to its fillet, and the remains to the cavetto.

RULE V. To divide the Heights of the Mouldings contained in the cornice of the Composite Pedestal. Plate LVII. Divide the height in 6 parts, as at A; give half the upper 1 to the regula; the next 1 to the cima-reversa; the next 1 and half to the plat-band; one third of the next 1 to the fillet on the cima-recta; the remaining two thirds

and the next 1 to the cimu-recta; one third of the last 1 to the fillet

on the cavetto, and the remaining two thirds to the cavetto.

The heights of the several mouldings on the plinths, and in the cornices, being thus found; I shall proceed to shew, how to give each its proper Projecture from the upright of their dados.

The Projections of the Plinths, and Members on the Plinths, and in

the cornices of Pedestals explained.

Make the projection of the plinth from the upright of its dado, in every Order, equal to the height of the mouldings on the plinth; and make the projection of every cornice the same.

To find the Projections of the several Members.

Divide the projection of the Tuscan plinth in 6, and of all the other Orders, in 4; and then subdividing the parts as exhibited in the scales of projection, which are placed between the base and cornice of each pedestal: from thence, stop; or terminate the projection of each member, as by inspection is shewn; and thus are the five Orders of pedestals completed.

CHAP, III. Of Columns and their Parts.

A COLUMN consists of three principal parts, viz. a Base, Shaft, and Capital.

The height of columns emplained.

To find the heights of volumns, having the heights of the columns and entablatures given, these are the rules:

RULE I. In the Tuscan and Dorick Orders. Plate I. and X. Divide the given height of the column and entablature in 5 parts; the upper 1 is the height of the entablature, and the lower 4 of the Column. Divide the height of the Tuscan Column in 7, and of the Dorick in 8; and 1 is the Diameter of the Column.

RULE II. In the Ionick, Commitmen, and Composite Orders. Plates XXI. XXXIX. and LVII. Divide the given height of the column and entablature in 6 parts; the upper 1 is the height of the

entablature, and the lower 5 of the column. Divide the height of the Lonick column in 9, and the Corinthian and Composite columns each in 10 parts, and 1 is the diameter.

The Heights and Projections of the bases of columns explained.

The height of the base of every column is precisely half its diameter next above the base; and the projection of the plinth, from the upnight of the shaft, is always equal to one 6th of the column's diameter.

The height of Plinths to the bases of Columns is either equal to half the height of the whole base, as in the Tuscan base, Plate II. or to one third of the base's height, as in the Dorick base on the right-hand side, Plate XI. And in the Ionick, Corinthian, and Composite bases, Plates XXII. XLI. LVIII.

To make the construction of bases to columns easy, I will explain how to divide the heights and terminate the projections of the members contained in the Tuscan and Dorick bases; by which those of the Ionick, Corinthian, and Composite will be understood, as being no more than repetitions of the like rules.

RULE I. To divide the heights, and terminate the projections of the Members contained in the base of the Tuscan column. Plate II.

I. To determine their heights. Divide the height in two, and give the lower 1 to the plinth as aforesaid. Divide the upper 1 in 4; give the lower 3 to the torus, and the upper 1 to the cincture.

II. To determine their projectures. Divide the projection of the plinth from the upright of the shaft in 4 parts, and the second part in 4; then 1 part and 3 fourths of the second stops the cincture, and the Torus is always in every Order the same projection as the plinth.

RULE II. To divide the heights, and terminate the projections of the Members contained in the Attick base to the Dorick column, on the right-hand side of plate XI.

- I. To determine their heights. Divide the height in 5 parts; the middle part in 4, and the upper part in 2. Give the lower 1 part to the plinth, as aforesaid; three fourths of the next to the lower torus; and half the upper 1 to the upper torus. Divide the remainder between the two toruses in 6; give the upper and lower ones to the two fillets, and the middle 4 to the scotia.
- II. To determine their projectures. Divide the projection of the plinth in 4 parts, and the 2d and 3d parts in halves. From whence perpendicular lines being drawn up, will terminate the cincture, and the two fillets of the scotia.
- RULE I. To describe the curve of this scotia. Divide the height in 3 parts, as at B; and draw the lines c b 2 and a b. On c b describe the quadrant a c; and on the point 2, the arch c d, which together form the curve of the scotia to the attick base.

I will also now shew how to describe the scotia in the Ionick, Corinthian, and Composite bases, as expressed at large by Figure A. Plate xli. Divide the height b g in 7 parts; from the third part draw f c parallel to the fillets, and equal to the 3 parts; thre' the point f draw the line a c parallel to b g, and make f a equal to 4 parts of b g. Draw a c, and then, on the point c, describe the arch b x d, and on a the arch d c.

Having thus explained the bases, or first part of columns, I shall now proceed to the second parts, which is their Shafts.

The shaft of a column is that part which is contained between its base and capital; and consists of 3 parts, viz. its cincture, trunk, and astragal; excepting in the Tuscan, where the cincture is made a part of the base to the column.

To render the shafts of columns agreeable to the taper growth of the trunks of trees, (with which the first columns were made) their shafts, or rather their trunks, are therefore diminished from the lower third part, up unto the astragal, as follow:

The

The shaft of Columns and their diminution explained.

RULE. To diminish the shaft of a column. Plate I. figure A. Set up the shaft's height; at i k, its astragal, set off its diminished diameter, viz. three fourths, as being Tuscan. Compleat the lower third undiminished part of the shaft, and on a d its upper part describe the semicircle a b c d. From i k draw the lines i b, k c, parallel to h n, the central line, cutting the semicircle in b and c. Divide the arches a b and c d, each into any same number of parts; suppose d; and divide h n into the same number of parts also, as at the points, g f c; through which draw right lines at right angles to h n of length at pleasure. From the d divisions in the arch a b, to those in the arch c d, draw ordinates (as those dotted.) Make the diameter of the shaft at c equal to the length of the first ordinate; at f to the length of the second ordinate; and at g to the length of the third ordinate. Then from the points i k, through the extremes of the diameters g, f, e, to the points a d, trace the contours or out-lines of the shaft's diminution.

The manner of Rusticating the Shafts of Columns explained.

The shafts of the Tustan, Dorick, and Ionick columns, are sometimes rusticated; but those of the Corinthian and Composite seldom or never.

RULE. To rusticate the Tuscan, Dorick, and Ionick shafts. Divide the height of the Tuscan in 7, as in plate I. the Dorick in 8, as in plate X. and the Ionick in 9, as in plate xxi; then the blocks and intervals in the Tuscan and Ionick will each be 1 diameter and those of the Dorick 2 diameters.

The projection of the blocks is generally made equal to the projection of the plinth, as expressed in the *Turcan* order, plate I. and continued upright, without diminution; but as the upper parts of the shafts seem thereby overcharged, I therefore recommend the diminution to be parallel with the shaft, as in the *Dorick* order, plate X.

The manner of Fluting the Shafts of Columns emplained.

The Shafts of the *Dorick, Ionick, Corinthian*, and *Composite* Columns, are sometimes fluted and cabled; but the Shaft of the *Tuscan* Column seldom or never was, as being an embellishment too gaudy for so robus

lar 31 parts also. Of which give the two outer parts to the two beads at the quoins; the next two outer ones, to the two outer fillets; the next 3, to the breadth of a flute; the next 1, to a fillet; the next 3, to a flute; the next 1, to a fillet, &c.

Note, By the same rule a pilaster with flutes and fillets only, as Fig. A, is divided from 29 parts, first set off at pleasure, and then proceed-

ing as before.

Having thus explained the Bases and Shafts of columns, &c. I shall

now proceed to their Capitals.

Of Capitals, there are two kinds, viz. the one consisting of Mouldings only, as those of the Tuscan and Dorick; and the other of mouldings and sculptured ornaments, as the Ionick, Corinthian, & Composite.

The heights of Capitals explained.

The height of the Tuscan and Dorick capitals are each precisely a semi-diameter, as in plates ii. and xi. The height of the ancient Ionick capital, in its mouldings above the astragal of the shaft, is but one third of a diameter, or 20 minutes; but including the depth of its volute, it is 35 minutes, as in plate xxiii. which exceeds the volute to the modern capital by 5 minutes. The height of the Corinthian capital is one diameter and one sixth, as also is the height of the Composite capital.

The divisions and projections of the members in the Tuscan and

Dorick capitals explained. Plate ii. and xi.

RULE I. To divide the heights and determine the projections of-

the members in the capital of a Tuscan column or pilaster.

I. To divide the heights of the members. Plate ii. Divide the height in 3 parts (as on the left-side.) Divide the middle 1 in 6: of which give the lower 1 to the fillet under the ovolo; and the other 5 to the ovolo. Divide the upper 1 into 4; give the upper 1 to the fillet; and the other 3 to the fascia of the abacus. Set down a b, half the height of the frieze or neck of the capital, from b to c, and divide it in 3 parts; give the upper 2 to the Astragal, and the lower one to its fillet.

II. To determine the Projections. Divide the semi-diameter of the column at its astragal (as is done above on the capital) in 6 parts, and give 3 to the projection of the upper fillet.

But if the capital is of an undiminished pilaster (as on the right-hand side of plate II.) then divide the semi-diameter of the Pilaster (as above on the Capital) in 8 parts, and give three to the projection, as before.

Note, By the scale of projection, placed against the neck of the capital you see that the whole projection is divided in 3; the first 1, in 2, and the last 1 in 4; the half of the first 1 stops the projection of the fillets under the astragal and ovolo; and the 2 first of the 4, in the outer 1 third part, stops the ovolo and fascia of the abacus.

RULE II. To divide the heights, and determine the projections of the members contained in the capital of a Dorick column or pilaster. Plate XI.

I. To divide the heights of the Members. Divide the height in 3 parts (as on the left-side,) divide the middle 1 in 3; of which the lower 1, divided in 3, give the upper 2 to the astragal, and the lower 1 to the fillet. Divide the upper 3d part in 3; give the lower 2 to the fascia of the abacus; and the upper 1 thereof, divided in 3, give the upper 1 to the fillet, and the lower 2 to the cima-reversa.

Note, The height of the astragal to the shaft is found, as before, in

the Tuscan column, preceding page, &c.

II. To determine their Projection. Divide the Semi-diameter of the column at its astragal (as above on the capital) in 4, and give 2 to the projection of the upper fillet. But if the capital is of an undiminished pilaster, (as on the right-hand side) then divide the semi-diameter of the pilaster (as above on the Capital) in 5 parts, and give 2 to the projection, as before.

By the scales of projection on each side of the capital, you see, that the whole projection is there divided in 4 parts; from which and their sub-divisions, the several Members in the two varieties of capitals have their projections determined.

The

The ancient Ionick capital, and its volute explained. Plate xxiii. RULE I. To divide the height of its members, and describe its volute.

I. To divide the height of its members.

Divide the given height as k x, in 11 parts; give the upper 1 to the upper fillet; the next 2 to the cima reversa; which with the aforesaid fillet makes the abacus; give the next 1 to the list of the volute; the next 3 to the band of the volute; and the remaining 4 to the evolo. This done, set down 8 of the above 11 parts from x to I; give the first 2 to the astragal; the next 1 to its fillet, and the lower 5 to the depth of the volute. Divide r s on the right-hand (which is equal to k x, or 20 minutes, the height of the mouldings of the Capital) in 4 parts, and turn down 1 part to d; then r d will be equal to 25 minutes, which is equal to the semi-diameter of the column at its shaft. Now admitting b v to be the central line of the column, make v c equalito r d, and draw the line e c h, which will be the upright of the column. Make h g equal to two thirds of a 1, the height of the astragal; and from the point f draw the cathetus or line fg, parallel to the central line. Divide g h in 4 parts; the first 1 stops the astragal at a: Make f n equal to f i, which will terminate the projection of the abacus.

RULE II. To describe the Ionick volute. Plate xxiii. From 1 part below x, draw the line h m v for the central line of the astragal, intersecting the cathetus i g in o. On the point o, with the radius o x, describe the circle or eye of the volute (which is represented at large by the figure R) wherein inscribe the geometrical square, and draw its diameters 2, 4; and 1, 3; divide each semi-diameter in 3 parts, as at the points 6. 10; 5. 9; 12. 6; and 11. 7; which are the centers numbered in order, on which the out-line of the volute is described, vix. The point 1 is the center to the arch i m; the point 2, of the arch m x; the point 3, of the arch g n, &c.

The inward line of the list of the volute is described on 12 other centers, which are at one fifth of the distance between the other 12 centers, and which are signified by the small divisions next within the 12 centers in the eye of the volute at large, in Plate xii.

And

To gradually diminish the list of this volute, we must divide its height or breadth in 12 parts, as expressed above, in Pl. XXII. and at every quarter of its rotation, abate its breadth 1 of those parts, as expressed by the numerical figures affixed, which will cause it to terminate at the eye in a point.

Note, Fig. A B, Pl. XXIII. is a view of half a side of the capital, wherein B shews the thickness of the volute, whose height is equal to is g in the front. The heights of the other parts are shewn by the scale of parts on the left, and is the same as the like scale above.

Note, The abacus to this capital being square, is therefore called by workmen a Trencher capital; and indeed very properly, because the word abacus is derived from the Greek word abacs, signifying a square trencher.

The modern Ionick capital explained. Pl. XXIV.

RULE. To divide the heights of the members contained in its abaeus, and to determine their projections. This capital, though called modern, was invented by Vincent Scamozzi; and including its volute, is precisely half a diameter in height.

I. To find the heights of the members. Divide its height in 3 parts, and the upper half of the upper 1 in 4, as on the left; of which give the upper 3 to the ovolo; and the other 1 to the fillet under it. Divide the lower 2 parts and half in 8 parts (as on the right,) give the upper 1 and half to the fascia of the abacus; the next half to the recess under the abacus; the next 2 to the ovolo; the next 1 to the astragal, and the next half to its fillet.

II. To find the projectures of the members. Draw the central line of the column hg; and in any place, as at g, draw the line a b at right angles to hg, and of length at pleasure. Make g e and g d each equal to the semi-diameter i k; and divide it into 12 parts, each representing 5 minutes (or $\frac{1}{12}$ of a diameter;) make e and g g each equal to 15 minutes or $\frac{1}{2}$ of a diameter, which terminates the projection of the extreme parts or returned horns of the abacus; as exhibited by the dotted parallel lines drawn thence up to them.

And from the sub-divisions of the 2 outer 5 minutes, the projections of the other parts of the abacus are determined in the same manner; as also are the projections of the ovolo, astragal, and fillet, represented by dotted lines within the volute.

The volute of this capital is represented in plate XXII. and is described the same as that of the ancient capital; for though it appears to be elliptical when seen in a direct view, as being thereby something.

fore-shortened, yet it is circular, as the other.

Under this capital I have placed half its plan, whose construction being plainly exhibited by the dotted perpendicular lines, proceeding from the members in the elevation, needs no further explanation.

The Corinthian capital explained. Plate XLI.

This capital was originally adorned with the acanthus's leaves only; but as some delight in variety, I have therefore in plate XI. given the acanthus with the olive, laurel, and parsley, to be employed at discretion.

The height of this capital was originally but 1 diameter: but modern architects thinking it too short, they therefore added 10 minutes, thereby making its height 70 minutes, and giving it a much more

magnificent aspect than it had before.

By the measures affixed, which are no more than the height divided in 7 parts, of which the upper 1 is the abacus, the height of every part is adjusted; and by the plan and elevation in plate XLII. the breadths and distances of the leaves, &c. are fully exemplified in the like manner.

In the drawing of this capital, the young student must first accustom himself to express only the leaves in gross, as expressed in this and the XLIVth plate, until he has made himself a master of forming their out-lines; when it will be a pleasure to raffle them, as expressed in plate XLIII. and XLV.

And as the capital of a pilaster has all its leaves in each face in a direct view contrary to those of a capital to a column, and is one sixth

of a diameter more in breadth; I have, therefore, to explain the difference and parts, shown in plate XLIV. the plan and elevation of a capital to a pilaster, in the same manner as that of a column, in plate XLII. as, indeed, I have also the elevation of a half capital at large, with its leaves raffled, as those of plate XLIII.

The Composite Capital explained. Plate LVIII.

This order is called Composite, because its capital is composed of the Ionick and Corinthian capitals; that is, its abacus, volutes, ovolo, and astragal between them, are the very members which form the modern Ionick capital. Its two heights of leaves are the very same as those in the Corinthian capital; and its stalks, which in the Corinthian capital finish with volutes and helices, are here stopt by the Ionick volutes, and made to finish inwardly with husks on tendrils, called caulicoles.

The height of this capital is the same as that of the Corinthian, and is divided in 7 parts also, of which the upper 1 is the height of the abacus; and which being divided in 2, and the upper 1 in 5; the upper 4 is the height of the ovolo, and the lower 2 of the fillet. Divide the lower half of the height of the abacus with the next 2 parts into 8, and then finish the volute exactly the same as in the modern Ionick capital. Plate XXIV.

Now, as the remaining part of this capital is entirely *Corinthian*, as before proved, it is needless to say more thereof; but that it may be fully exemplified, I have therefore shewn its elevation at large, in plates LIX. and LX. as well for a pilaster as for a column, as I have done before in the *Corinthian* order.

CHAP. IV. Of Entablatures.

A N entablature is the uppermost or last principal part of an order, (which *Vitruvius* called *ornament*) and consists of 3 parts, viz. an architrave, a freeze, or frize, and a cornice.

The heights of entablatures being declared in chap. I. we are now to observe that their projections are equal to their heights, in all the orders, excepting the *Dorick*, and that only when its mutules are introduced; when it consists of half the entablature's whole height.

The heights of the several entablatures are thus divided into their architraves, frizes, cornices, &c.

RULE I. To divide the Tuscan entablature into its architrave, frize, cornice, &c. Plate III. First, divide the given height into 7 parts; give 2 to the architrave, 2 to the frize, and 3 to the cornice. Secondly, divide the height of the architrave in 7 parts; give 2 to the lower fascia, 4 to the upper fascia, and 1 to the tenia, whose projection is equal to its height; and which being divided in three, give 1 to the projection of the upper fascia. Thirdly, divide the height of the cornice in 3; divide the upper 1 in 4; and give the upper 1 part to the regula, and the other three to the cima-recta. Divide the middle 1 in 6; give the upper 1 to the fillet, and the other 5 to the corena. Divide the lower 1 in 2; give the upper 1 to the fillet, and other 3 to the cavetto.

By the scale of projection is seen, that the projection of the corena is two thirds; the ovolo, one third; and the fillet of the cavetto, one sixth of the whole.

Note, By well understanding the manner of proportioning this entablature, (which is very easy) the others following will become as easy: But that the young student may not be at any stand therein, I will, for a further explanation, explain the entablatures of the Dorick and Ionick orders in the same manner.

RULE II. To divide the Dorick entablature into its architrave, frize, cornice, &c. PI. XII. First, divide the height in 8 parts; give 2 to the architrave; 3 to the frize, and 3 to the cornice. Secondly, divide the upper 1 of the architrave into 3, and give the upper 1 to the tenia: Divide the lower 2 in 6; give the upper 1 to the fillet over the guttas, and the next 3 to the guttas.

Divide the lower third part of the height of the cornice in 3; and give the lower 1 to the cap of the triglyph. Divide the remaining part of the cornice's height in 4 parts, and the upper 1 part in 4; of which give the upper 1 to the regula, or upper fillet on the cima-

retca; and the lower 3 to the cima recta. The next part divided in 3, half the upper 1 is the fillet; and the remainder the corona. The next part being also divided in 3, the upper 1 is the capping of the mutule, and the lower 2 the mutule. Lastly, the lower 4th part divided in 3, half the upper 1 is the depth of the ground to the mutules, and half the lower 1 is the fillet to the ovolo of the bed-mould:

The projection of this cornice (as before observed) is half the height of the whole entablature; which being divided in 4, as on the *cimarecta*, has the projections of its members determined, as by inspection is shewn.

Now it is to be noted, that the breadth of a triglyph is always equal to half the column's diameter at its base; that its channellings and guttas are found by dividing the breadth of the triglyph into 12 parts, as exhibited at large in Pl. XIII. That the distances between the triglyphs must always be equal to the height of the frize, and therefore will become exactly square. That these intervals or squares are called metopes; and are sometimes enriched with roses, as here expressed, or otherwise at the pleasure of the architect; and that the manner of forming the planceer of this cornice is shewn in Pl. XIV.

RULE III. To divide the Ionick entablature into the architrave, frize, cornice, &c. As this order has two varieties of entablatures, viz. the one with dentules, and the other with modillons; I have therefore shewn them both, and by explaining of one, the other will be understood.

To divide the Ionick entablature with dentules. Pl. XXVIII. First divide the height in 10 parts, give 3 to the architrave, 3 to the frize, and 4 to the cornice. Secondly, divide the upper 1 part of the architrave in 4: give the upper 1 to the fillet; the next 2, and 1 fourth of the lower 1 to the cima-reversa; and the remaining 3 fourths of the lower 1 to the bead. These members together are called the tenia of the architrave, whose fillet's projection is equal to their whole heights. Thirdly, as the frize of this order is made swelling, there-

fore divide the height in 4, and on the middle 2 make the section x, on which describe the curve of the frize. Fourthly, the height of the cornice being in 4 parts, divide the upper 1 in 4; give the upper 1 to the regular or fillet on the cima-recta, and the remaining 2, with 2 thirds of the lower 1, to the cima-recta; and the 1 third give to the fillet on the cima-reversa.

Divide the next part in 4; give the upper 1 to the cima-recta, and the other 3 to the corona.—Divide the next or 3d part in 6; give the upper 3 to the ovolo, the next 1 to its fillet, and the next 1 to the fillet between the dentules.—Divide the lower 1 in 3, the upper 1 will terminate the depth of the dentules. Divide the middle 1 in 3, and the upper 1 will be the depth of the denticule or fascia, on which the dentules are fixed, and the remains will be the cima-reversa, and lower member of the entablature.

The projection is divided into 4 principal parts, as by the scale against the frize is shewn; by which its members are terminated, as by inspection is plain.

To divide the Ionick dentules. In an entablature over a column, divide the distance between the central line, and the upright of the shaft at its neck, into 10 parts; give 2 parts to the breadth of a dentule, and 1 to an interval. But in an entablature over an undiminished pilaster, divide the aforesaid distance into 12 parts, and proceed as before.

Note, The breadth of a dentule is 5 minutes, and of an interval 2 minutes and a half; which are described at large in plate XXX.

Now, as the *Ionick* entablature with modillons, as expressed in PI. XXIX has its members proportioned in like manner, I therefore need only to note, that the breadth of each modillon is 10 minutes; that the distance or interval between them is 25 minutes in an entablature to a column, and 30 minutes in an entablature to an undiminished pilaster. And that the curve of the sophete of the *Ionick* modillon is described at large in Pl. XXX. as following:

The height and projecture being before found. Divide the length in 6 parts; and on the point 5 erect the perpendicular 5 a equal to 2 parts and a half; also from the point 2 let fall the perpendicular 2 b equal to 1 part and a half, and draw the line a b. On the point 2, describe the arch 1 d; on the point b, the arch d c; and on the point a, the arch c 5.

Note, The manner of forming the return of the planceer of this cor-

nice is shewn in Pl. xxxi.

RULE III. To divide the Corinthian entablature into its architrave, frize, and cornice. Pl. xlvi. First, divide the height into 10 parts; give 3 to the architrave, 3 to the frize, and 4 to the cornice. Second, divide the height of the architrave, and of the cornice, each in 5 parts, and sub-divide them as exhibited; and then proceed in every respect as in the preceding orders.

Note, That though the dentules are expressed in this cornice, yet

they are not always used.

That the breadth of the modillons is 10 minutes, as before in the *Ionick*, but their distances are greater.

The interval between modillons in a cornice over columns is 25

minutes; and in a cornice over undiminished pilasters 30 minute

To render the parts of this modillon plain and intelligible, I have shewn it at large in front and profile, with its measures, in Pl. xlvii. wherein figure A represents the eye of its volute at large, with the centers numbered, on which its curves are described in the very same manner as the volute of the *Ionick* capital.

Between the modillons the planceer of the sophete of the corona is enriched with roses in hollow pannels, called coffers, as expressed in Pl. xlviii. which also shows the manner of returning the sophete at an

external angle,

RULE IV. To divide the composite entablature into its architrave, frize, and cornice. Pl. lxi. First, divide the height into 10 parts; give 3 to the architrave, 3 to the frize, and 4 to the cornice. Secondly, divide the heights of the architrave and of the cornice, each into 4; subdivide

subdivide their parts, draw in and terminate their members by the scale of projection as before done in the preceding orders. The manner of enriching the planceer of the corona of this cornice, and returning it at an external angle, is exhibited in Pl. lxii.

CHAP. V. Of Doors, Windows, Porticoes, Arcades, and the Intercolumniation of columns in general.

THAT the young student may have pleasure in the process of his study, I have given him an example of a door, square and circular headed, with circular and pitched pediments; a window, a portico, and an arcade, with their imposts and architraves, in each of the first 4 orders; which immediately follow their respective entablatures; and which having their principal parts determined by their measures affixed, need no other explanation. And in order to further enable him in the art of designing, I have shewn the proper intercolumniations, or just distances, that the columns of every order must be placed from each other, when employed in colonnades, &c. by which he may form new designs at his pleasure. See Pl. vi. xvii. xxxiv. xxxv. and liii.

CHAP. VI. Of Pediments, and the manner of finding their raking and returned mouldings for their cornices, and for capping of their raking mutules and modillons.

PEDIMENTS, which the French call Frontons, from the Latin Frons, the forehead, are commonly placed over windows, doors, porticoes, &c. to carry off the rains, and to enrich the order on which they are placed.

Pediments are either entire or open; and those are straight, circu-

lar, compound, &c.

An entire straight pediment is generally called a pitched pediment, as the lower pediment in plate LXIX. And an entire circular pediment is generally called a compass pediment, as the upper pediment in Plate LXIX.

When a pediment consists of more than one arch, as those in plates laxi, and laxii, they are called entire compound pediments.

Open pediments are those, whose raking members are stopt in some certain place between the points of their spring, and their fastigium or vertical point; as those in plate lxiii. the lower pediment in plate lxxi. and the upper in plate lxxiv.

Entire pediments are the first kind that were made; and were originally placed to porticoes at the entrances into temples; but now we place them to frontispieces of doors, windows, &c. for ornament and use.

As the entire pediment, by its reclining surfaces, carries off and discharges the rains at its extremes, therefore none but entire pediments should be employed abroad; whilst the broken or open are employed

for ornament only within-side, where no rains can come.

'Tis true we may daily see open pediments placed without-side, as is done by Inigo Jones at Shaftsbury house in Aldersgate-street, London. But, surely nothing can be so absurd, (unless it is the placing of an entire pediment within-side a building where no rains can fall, as done by Mr Gibbs, within the church of St Mary le Strand) because by their being open, they receive the rains, and discharge them in front, as a straight and level cornice doth, and therefore of no more use.

As Pediments, when well applied, are very great enrichments to buildings, and in many cases are very useful, I have therefore given 14 varieties for the young Student's practice, with their measures affixed; by which they may be drawn and worked of any magnitude required.

Vide plates lxix. &c.

In the working of pediments, the chief difficulty is, to form the curves of the raking and returned cornices, that shall exactly accadeer, or meet at their mitres; which may be truly worked as following:

RULE. To describe the curve of the raking sima-recta of a pediment, having the curve of the straight or level cornice given. Plate lxv. Let a b g be the given sima-recta; divide its curve in 4 equal parts at the points d e f; and draw the ordinates i f, k e, and also g d; from the points d e f draw the raking lines f q, e r, d x; and the perpendicular lines d k, e l; f m. In any place, as at n e, draw a right line at right angles to the raking lines; and making the ordinates in fig. B, as w q.

n r, t s, equal to the ordinates i f, k e, g d, in fig. A, through the points q r s, trace the curve p q r s n, which is the curve of the raking *cimarecta* required. And tho', strictly speaking, each half is a part of an ellipsis, yet, if centers be found that shall describe the arch of a circle to pass through the three points p q r, and r s n, it will not be in the power of the most inquisitive eye to discover the difference.

To describe the curve of the returned cornice.

From p, fig. C, set back p o, the projection b g in fig. A, and draw the perpendicular o n, on the top of the fillet p o; make the distances p t, t v, v w, equal to the distances b k, k l, l m, in fig. A; and drawing the lines w x, v r, t g, parallel to the perpendicular o n, they will cut the raking lines in the points q r s x. From the point p, thro' the said points to n, trace the curve p q r s x, which is the curve of the returned cima-recta, as required; for its ordinates at those points are equal to the ordinates in fig. A.

By the same rule, the curves of the raking and returned ovoloes, plate lxvi. the raking and returned cavettoes, plate lxvii. and the raking and returned cima-reversa, for the capping of raking mutules and mo-

dillons, plate lxviii, are found, as is evident to the first view.

CHAP. VIII. Of block and cantaliver cornices, rustick quoins, cornices and coves, proportioned to rooms of any height, angle-brackets, mouldings for tabernacle frames, pannels and centering for groins.

I. OF block cornices I have given three varieties in plate lxxv.; where I have first shewn shem in small, to express the breadth of their block-trusses, and distances at which they are to stand; as likewise the manner of applying them over rustick quoins; and, secondly,

at large the better to express the division of their members.

II. In plate lxxix. I have given an example of a cantaliver cornice at large, which in lofty rooms under a cove has a very grand and noble effect. The breadth of a cantaliver is one 4th of its height, which is equal to the height of the frize; and the distance they are placed at is the same as their height; thereby making their metopes exactly a geometrical square, as in the *Dorick* order.

III. Coves to ceilings are of various heights; as one third, one fourth, one fifth, one sixth, two sevenths, two ninths, &c. of the whole height.

A cove of one third, as fig. A. plate lxxxi. is best for a lofty room; and when windows are made therein, the groins make a very agreeable figure, and take off the seeming heaviness which an entire cove of

a large height imposes on the eye.

The curve of this cove x h is a quadrant of a circle described on the center e; as also is the curve a c of the same radius described on the center b. To find the center b, after having set out the distances of the columns at 9 diameters and a half, and described the cove x h, as aforesaid, make d b equal to a d.

A cove of one fourth, as fig. A. plate lxxix. is also fit for a lofty room, as a hall, saloon, &c. which is thus proportioned: divide the height in 20 parts; give 5 to the cove, and 2 to the entablature.

To describe an angle-bracket for any cove, suppose for fig. B. Let a b c be a front-bracket, and a f the base over which the angle-bracket is to stand. In C draw ordinates from its curve to its base a n, at any distances, and continue them till they meet a f the base of the angle-bracket, from whence raise ordinates at right angles to the said base; and making them respectively equal to those in figure C, through their extremes trace the curve a n e, which is one quarter of an ellipsis, and the curve of the angle-bracket required.

A cove of one 5th, as fig. I. plate lxxix. is fit for a room of state, and thus proportioned, viz. divide the height in 5; give 1 to the cove, and one third of the next to the cornice, which is *Dorick* without mu-

tules, and represented at large by fig. H.

A cove of one 6th, as the two coves in plate lxxx. is fit for dining-rooms, &c. and is thus proportioned: Divide the height in 30 parts;

give 5 to the cove, and 1 to the cornice.

A cove of two 7ths, as fig. B, plate lxxxi. is fit for a study or bed-chamber, and even for a hall, as herein expressed, and is thus proportioned: Divide the height in 7; give 2 to the cove, and 1 to the entablature, which is *Dorick*.

IV. In Plate lxxvi. I have shewn how to proportion the Tuscan, Dorick, Ionick, &c. cornices to the height of any room; a work known or at leat practised but by few.

I. To proportion the Tuscan cornice to a room of any height. Divide the height from the floor or dado in 5, and the upper 1 in 5; of which give 3 to the height of the cornice, and 2 to the breadth of its stile and height of its rail, fig. A.

II. To proportion the Dorick cornice to a room of any height, Fig. B. Divide the height in 4, and the upper 1 in 10; of which give 3 to the leight of the cornice, and 2 to the breadth of its stile and height of its rail.

III. To proportion the Ionick, Corinthian, or Composite cornices to the height of any room, Fig. C. Divide the height in 3, and the upper 1 in 5; of which give the upper 1 to the height of the cornice, and 3 fifths of the next 1 to the height of the rail, and to the breadth of the stile.

V. In plate lxxvii. I have given eight different mouldings for pannels; and in plate lxxviii. four different mouldings for tabernacle-frames, with proper enrichments, and their measures affixed; by which they may be drawn and worked of any magnitude required.

VI. In plate lxxxii, I have shewn the manner of finding the curves

of the necessary ribs for groins, by one general rule, as follows:

In fig. A, let a b c d be the plan, and the semi-circle a c b an end rib, and c f its height. Draw the diagonal a d, as also the ordinates 1 2 3 4, on the semi-circle rib, which continue till they meet the diagonal, in the points 5 6 7 8; from whence raise right lines perpendicular to a d, respectively equal to the ordinates 1 2 3 4, and then tracing the curve through their extremes, it will be the curve for the diagonal rib, as required.

By the same rule, the ribs for all other kinds of regular or irregular groins are found, be their plans what they will, and their arches semi-circular, semi-cliptical, or scheme; as is evident by figures B, C, D, E,

and F; which a little inspection will make evident to the meanest capacity.

CHAP. VIII. Of trussed partitions, trussed girders, naked flooring, &c.

I. In plate lxxxiii. are three varieties of trussed partitions, of 40, 50, and 60 feet bearing, for granaries, warehouses, &c. wherein great weights are laid; of which the middle one is for two stories height.

II. In plate laxxiv. the figures A B C represent three varieties of trussed girders; which ought not to exceed 25 or 30 feet in length; and figure D is a girder cut camber, which, for lengths from 15 to 20

feet, will do without being trussed as the preceding.

The Scantlings of Girders should be,

Lengths 18 2 21 2 12 5 10 11 12 12 13 14 12 15 15 15 15 15 15 15 15 15 15 15 15 15	from 21 24	र्म \ <u>24</u> 27	13 14	
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Note, That girders should have at least 9 inches bearing in the walls, and be bedded on lintels laid in loam, with arches turned over their ends, that they may be renewed at any time without damage to

the pier.

III. In the upper part of this plate, I have shewn three bays of joists, or naked flooring; wherein the two outer ones have only their binding joists expressed; and that in the middle with their bridging joists, (or furring joists) as called by some. In this kind of flooring its to be noted, that binding joists are so framed as that their under surface be level with the under surface of the girder, and the upper surface of their bridgings with the upper surface of the girder.

The distance of binding joists should not exceed 3 feet and a half, or 4 feet, in the clear; and their scantlings should be as follows, viz.

If their
$$\begin{cases} 8\\10\\12 \end{cases}$$
 feet, their scantlength be $\begin{cases} 6\\7\\8 \end{cases}$ inches, $\begin{cases} 5\\5\\5 \end{cases}$ inches.

Bridging joists should be laid at 1 foot in the clear, and their scantlings should be 3 by 4, 3 and a half by 4, or 4 by 4, &c.

In common flooring, where neither binding nor bridging joists are used, the scantlings of joists ought to be as follows, viz.

If the length be
$$\begin{cases} 10 \\ 11 \\ 12 \end{cases}$$
 feet, their scant-
$$\begin{cases} 7 \\ 8 \\ 9 \end{cases}$$
 inches.

Note, No joists to exceed 12 feet in length; to have at least six inches bearing, and that on a lintel or bond-timber; and their distance in the clear not to exceed one foot. It is also to be observed, that all joists on the breasts and backs of chimneys be framed into trimming joists (whose scantlings are to be the same as those of binding joists,) at 6 or 8 inches distance behind, and 12, 16, &c. inches before, as a a.

CHAP. IX. Of Roofs.

THE requisites to roofing, are the scarfing and completing of raisings or wall-plates, &c. to determine the necessary height of the pitch, agreeable to the covering; to find the lengths of principal and hip-rafters, and to back them when necessary; to contrive the proper trusses for strengthening the principal rafters; and to lay out in ledgement the several skirts; thereby to determine the quantity of materials necessary, and to find the several angles and lengths of all parts; so as to set out work, and fix at once the whole in a workmanlike manner, and in the least time.

Now, in order to make the young student a master herein, I have shewn,

I. In Pl. lxxxv. By figures CDEFGHIKLM ten different manners of scarfing together the raisings of roofs; which is the first work to be done; and then the beams being cogged down thereon at their

proper distances, which should never exceed 10 feet in the clear, we may begin to consider and work the superstructure to be raised thereon.

The first thing to be considered is the height of the pitch, which must be determined according to the covering; which, if with plain tile or slate, the true pitch, as fig. A, will be proper: But if with pan-tiles or lead, it may be much lower. But here, for example's sake, we will suppose a roof to be true pitch, whose plan is rvth, fig. B, and whose breadth we will suppose is equal to g 4, fig. A.

To find the length of a principal rafter. Divide $g \in A$ in 4 parts; on g and 4, with the radius of 3 parts, make the section h; then draw the lines $g \in A$, and $h \in A$; and each is the length of a principal rafter required.

To find the length of the hip-rafters. Draw the central line o a, and the diagonals or bases, over which the hip-rafters are to stand; as r a, t a, a v, and a h; make a t, a h, and a r, in fig. B, and draw the lines h t, h h, and h r; then h r is the length of the hip-rafter r p; h h is the length of the hip g h; and q v, and h t, is the length of the hip t s.

Or otherwise, on the end of the diagonal r a, raise the perpendicular a q equal in height to h a, in fig. A, and draw the line r p, which is the length of that hip, and equal to h r in fig. A, as before. By the same rule you may find the lengths of all the other 3 hips.

To find the angle of the back of any hip rafter. Through any point of its base, as c in fig. B, draw a right line at right angles, as f b, cutting the outlines of the plan in f and b. From the point c, let fall a perpendicular, as c d, on the hip g h; and make c e equal to c d. Draw the lines f e, and b e, and the angle b e f is the angle of the back required.

To lay out a roof in Leaguement. Pl. lxxxvi. Let b i d c, be a given plan; a h, fig. I, the given pitch; and h g, h e, a pair of principal rafters, agreeable thereto.

By the preceding, draw the ridge line a a, and the diagonals a d, a c, and a b, a i. In fig B, make a c, a d, and a b, equal to the diagonals

diagonals a d a e, and a b, a i, in fig. A. Through the points a a in fig. A, draw the two beams q k, and e 4. Make r q, $s e_i$ and k l, 4 m, each equal to the length of a principal rafter, as h g, fig. B; and draw the lines d s, s r, r b, and i l, l m, m c. On the points B and i, in fig. A, with the radius h b (the length of the hip) make the section s, and draw the lines b s and i l.

On the point d, in figure B, with the length h d, in fig. B, and on c with the length h c, make the section o; then drawing the lines d o, and c o, the skirts of the whole roof is laid; which fill up with small

and jack rafters at pleasure.

Now, when the skirts of a roof are thus drawn on paper, and are cut out round at their extremes, and be truly bent or turned up on the outlines of the raising, as b i, b d, d c, and c i; they will all come truly together, and become a model of the roof required, wherein every rafter may be expressed in its place, and the just lengths and quantity known to a very great exactness.

By the same rule, the irregular roof, Pl. lxxxvii. is laid out in ledge-

ment, and its requisites found, as is evident at the first view.

Note, As this plan hath not parallel sides, every pair of rafters will therefore be of different lengths, although the height of their pitch is the same, and so consequently every rafter must be backed by taking away a triangle, as $a \in b$, fig. D. and then the sole of the foot of a rafter will be as $c \in a \setminus b$.

The following Plates, consisting wholly of trusses for roofs and domes, need no explanation more than their own figures express, to

which I refer,

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ABACUS is a square table, list, or plinth, in the upper part of the chapiters of columns, especially those of the Corinthian order: Abacus comes from the Greek word Abax.

ABREVOIRS, a term in Masonry, by which is understood the intervals or spaces between the stones in laying them, commonly called the joints.

ACANTHUS, the herb whose leaves are represented in the capital of the Corinthian column.

ACROTERIA, are sharp and spiry batdlements, or pinacles, that stand in ranges, with rails and balusters, upon flat buildings; also images set on the tops of houses are so called by some.

ACROTERES are pedestals upon the corners and middle of a pediment to support statues; they may properly be called pinacles. The word in Greek signifies the extremity of any thing; the tip of a finger, a rock, or the like.

ACUTE ANGLE, an angle that contains less than ninety degrees.

ADZE, an instrument used by Carpenters to shape or cut with.

ALCOVE, by the Spaniards called Alcobar, is a recess within a chamber,

for the setting of a bed out of the way; also a Seat at the termination of a Walk in a Garden.

AMPHITMEATRE, is an edifice or building of an oval or circular form, with rows of seats one above another, where spectators might sit to behold stage plays, and other public diversions.

ANABATHRUM, a place that is ascend-

ed to by steps.

ANCHORS, is a certain sort of carving, somewhat resembling an anchor or arrowhead; it is commonly part of the enrichments of the boultins of capitals of the Tuscan, Dorick, and Ionick orders; and also of the boultins of bedmouldings of the Doric, Ionic, and Corinthian cornices. These anchors and eggs being alternately carved throughout the whole building.

Ancones, the consoles (a sort of brackets and shouldering pieces) are called ancones by Vitruvius. See Console.

ANNULET, the same as cincture, from the Latin Annulus, a ring; in architecture, 'tis used to signify a narrow flat moulding which is common to divers places of the columns, as in the bases and capitals, &c. 'Tis the same mem-

ber as the sieur Mauclere, from Vitruvius, calls a fillet, and Palladio, a listella or cincture; and Brown, from Scamozzi, a supercilium, list, tinea, eye-brow, square and rabit.

ANTÆ, pillars adjoining to the wall. See Parastatæ

ANTICHAMBER, from the Italian Anticamera, an outer or fore chamber; a room in noblemen's houses, where strangers stay till such time as the party to be spoken with is at leisure.

ANTIC, a term in sculpture, and painting, being a confused composure of figures of different natures and sexes, &c. as of Men, Beasts, Eirds, Flowers, Fishes, &c. it is also called Grotesque.

ANTICUM, from the Latin, a porch before a door, the fore door, a hatch.

Antipagments, the ornaments, or garnishing in carved work, set on the architrave, (jaumbs, posts, or puncheons of doors,) whether of wood or stone.

ANTIQUE, Lat. by Antique buildings, we mean the buildings of the Greeks and Romans.

ANGLE, (in Geometry) is the inclination or leaning of two lines, one towards the other; the one touching the other, yet not being directly joined together, < as in the figure here represented, is called an acute Angle, if of this form | it is an obtuse Angle, if of this form L a right Angle.

APERTIONS, or Apertures, from the Lat. signifying opening; is used to signify Doors, Windows, Stair-cases, Chimnes, or other Conduits; and in short, all inlets or outlets, for men, light, smoke, &c.

Aquenuer, from the Lat. Aqueduc-

tus, a conveyance made for the carrying of water front one place to another.

ARCADE, a range of arches with open places to walk, as that of Covent Garden, the Royal Exchange, &c.

ARCHES, it comes from the Lot. Arcus, a bow, is used to signify an inward support to the superstructure, and it is either circular, elliptical, or strait.

ARCHITECTONIC, belonging to the chief overseer of buildings, also to an —ARCHITECT, a Master-work-man in a building; and is he that supervises and gives the draughts or designs of a Fabrick, and directions for a Model thereof, if required; and also whose business it is to consider of the manner and method of the building, and also the charge and expence of the whole.

ARCHITECTURE.the science which teacheth the art of building, being a skill obtained by the art of designing, and the precepts of Geometry, by which it gives the rules for designing and raising all sorts of structures, according to Geometry and proportion: containing under it. all those arts that conduce any thing to the framing houses, temples, &c. The scheme or projection of a building is easily laid down in three severaldraughts or designs. The first is a plan, which shews the extent, division, and distribution of the ground into apartments, and other conveniences. I'he second shews the stories, their heights, and outward appearafices of the whole building; and this we call the design or elevation. The third, called the section, shews the inside; and from these three designs the undertaker forms a computation of the expence of the building, and the time

required to go through with it. So much for what is called civil Architecture. Military architecture, usually called Fortification, has for its object the making a place of difficult and dangerous approach to an enemy.

ARCHIVES, a place where ancient records, charters, and evidences of a nation are kept; also the records them-

selves.

ARCHITRAVE, the word comes from the Greek Archos, chief; and the Latin Trabs, a beam. 'Tis also sometimes called Epistyle, from the Greek Epi, upon, and Stylos, a column. It is used to signify the moulding or ornament next above the capital of a column; it being always the next member below a frieze: the word is also sometimes used to signify the chief or principal beam of a building, as what we call Porticos, Piazzas, or Cloysters. By Cloysters we understand a long kind of Galleries or walking-places, whose roof is borne or supported by columns or pillars, at least on one side: and have not arches rising from them to bear the superincumbent part of the fabrick, but have a beam resting or lying upon the tops of the columns, by which the superior part of the edifice is supported, upon which account I suppose it to be called chief or principal beam. In chimnies, the architrave is the mantle over the jaumbs of doors, it is called Hyperthyron.

There are also architrave doors and windows; those are called architrave doors which have an architrave on the jaumbs or puncheons, and over the doots upon the cap-piece, if strait: also upon the jaumbs and cap-pieces of windows. The form of these Architraves about doors are not always the same; for sometimes they are according to one of the five orders; but are sometimes done according to the workman's fancy.

AREOSTYLE, this word Vitruvius uses to signify the greatest interval, or distance, which can be made between the columns; consisting of four diameters. It comes from the Greek, Araies, thin set or rare, and Styles, a column.

ASHLAR, by Ashlar is meant common or free stones, as they come out of the quarry, of different lengths and

thicknesses.

ASHLERING, quartering in garrets about 21, or 3 foot high, perpendicular to the floor, up to the under side of the rafters.

ASTRAGAL, a little round moulding which incompasses the top of the fust, or shaft, of a column. It comes from the Greek Astragalos, the bone of the heel. The shaft always terminates at top with an Astragal, and at bottom with a fillet. which in this place is called Ozia.

ATTIC, in building, a little order, placed upon another much greater; for instead of pillars, this order has nothing but pilasters, with a conice architraved for an entablement; as that, for instance, in the castle of Versailles, above the Ionic, on the side of the garden.

ATTIC, or Athenian, base, the same as the Doric base, which see.

BAC,

RACK, Baquette, a kind of Astragal, or hip-moulding, is a term in carpentry, by which they signify the outward angle, or the hips or corners of a roof; which in square frames, where the roof is $\frac{3}{4}$ pitch, contains an angle of 116 degrees, 12 min.

It is also a term used by Ironmongers.

to signify a certain sort of Nails.

BALCONY, is a kind of open Gallery, (without the walls of a house or building) for people to stand in, and behold any action, as pageants and the like, in cities; or to take the air, &c.

BALDAQUIN, is a French word, which properly signifies a canopy carried over the holy sacrament, among the Roman Catholics. 'Tis used by architects to signify a piece of architecture, built in fashion of a Canopy, or crown, supported by several pillars, to serve for a covering to an altar; some also use it to signify a shell over the front-door of a house.

BALKS, pieces of Fir-timber coming from beyond the seas by floats.

Ballon, French, a term signifyingthe round globe of the top of a pier, or pillar.

BALUSTRADE, a term used to signify a row of turned pillars, called Balusters, made of marble, iron, wood, or stone, so high as for a man to rest his elbows, fixed upon a terrass, or upon the top of a building, or to make any separation.

BAND, is any flat member that is broad, and not very deep; the word Face is sometimes used to signify the same

BANDELETS, it is derived from the French Bandelette, a little fillet or band, work, 'tis only filling up the vacant

is used to signify the three parts that compose an architrave.

BARGECOURSE, is a term used by workmen, by which they signify a part of the tyling, which projects over without the principal rafters, in all buildings where there is a gable-end.

BASE, from the Greek, Basis, a rest or support to any body, and which bears up another; but is particularly applied to the bottoms of columns and pedes-

Basilic, this among the ancients was a large hall, with porticoes, isles, tribunes and tribunals, where the kings themselves administer justice. Basiliscos, in Greek, signifies Royal.

BATTER, a term used by workmen, to signify that a wall, a piece of timber, or the like, doth not stand upright, but leans from youward, when you stand before it; but when it leans toward you. they say it overhangs, or hangs over.

BAY, the word is used to signify (as it were) the magnitude of a barn; for if a barn consists of a floor and two beams, where they lay corn, they say a barn of three bays.

BAY-WINDOW, is such a one as is composed of an arch of a circle; and so by consequence will stand without the stress of the building.

BEAD, a moulding so called, which is commonly made upon the edge of a piece, and known by all workmen.

BEAM, in building, is a piece of timber which always lies cross the building. into which the feet of the principal rafters are framed.

BEAM - FILLING, is bricklayers-

spaces betwixt the raising-plate and the joists.

BED-MOUI.DING, is a term used commonly amongst workmen; it consists, of these four members, viz. 1. (below) an O G. 2. a list. 3. a large boultin; and 4th and lastly, under the coronet another list; this is what they frequently call a bed-moulding.

BEVIL, any thing that is not square is called a *Bevil* angle; whether it be more obtuse, or more acute than a right

angle.

BINDING JOISTS are those joists, in any floor, into which the Trimmers of Stair cases (or well-hole for the Stairs) and Chimney-ways are framed; these joists ought to be larger than common joists.

BOAST, among workmen, is the taking off the superfluous part in carving or mouldings, &c.

BORDERS, among workmen, are those pieces round the slabbs of chimneys in the floor. Also all plain spaces round carving, painting, &c. is called the Border.

BOND, a term used among workmen; for when they say make good Bond, they mean, fasten the two or more pieces of timber well together, either with tenanting and mortising, or dovetailings &c.

BOTHAM is an Ironmonger's term, by which they use to signify a certain sort of Nails.

BOULDER-WALLS, that is walls made of round flints or pebbles, which are found where the sea hath a breach cast up, and also at some other places where there are plenty of flints.

BOULTIN, is a convex-moulding, that consists of an exact $\frac{1}{2}$ of a circle; being the member next below the plinth in the Tuscan and Doric capitals.

BRACE, in a building, is a piece of timber, which is framed in with hevil joints. It's use is to keep the building from swerving, either this or that way; they are sometimes called struts, viz. when they are framed in the king-piece, and principal rafters.

BRACKET'S or Braggots, are the seeming supports of the ends of steps to stairs, also to shelves, &c.

BREST, a term made use of by some, to signify the same member in a column that others call a Torus.

BREST-SUMMERS, in a building, are timbers into which the girders are framed in the first floor; but when in the ground-floor (they call it a sill) and in a garret-floor, then it is called a heam.

BUTMENT, is a term used by Masons and bricklayers, by which they mean the supporters, or stays, on or against which the feet of arches rest.

BUTTEN-NAILS, are a sort of Nails with round heads, and but short shanks, tinned and lackered.

BUTTRESS, a term used to signify a strength or support, either of brick or stone, intended to keep the work the firmer in its position, as against brick or stone-walls that are high, or have any considerable weight against them on the other side, as a bank of earth, or the like; they are also used against the angles of steeples, churches, and other buildings of stone, &c.

CAB-

CABINETS, strictly taken, is the most retired place in a house.

But a cabinet in palaces, and great houses, consists of an out-chamber and a cabinet with a gallery on the side.

CALIDUCTS, that is, conveyers of heat. The ancients used to warm their rooms with certain (secret) pipes (called Caliducts) that were conveyed in the walls, transporting heat to sundry parts of the house, from one common furnace.

CAMBER-BEAMS, a piece of timber cut arching (or with an obtuse angle) in the middle. Camber-beams are commonly used in platforms, as church leads, &c.

CANES, the small slender rods of castlead, of which the glaziers make their turned lead.

CAMERATED. vaulted or arched.

CANTALIVERS the same as Modillons, only those are plain, but these are carwed. They are both a kind of cartouzes, set (at equal distance) under the corona of the cornice of a building.

CANTALIVER-CORNICE, is such a cornice as has Cantalivers under it.

CAPITAL, is the upper part of a column; such as have no ornaments, are the Tuscan or Dorick, we call capitals with mouldings; and the rest which have leaves and other ornaments, capitals with Sculptures. The word is derived from the Latin Caput the head, or top of any thing.

CARCASE, the timber work (as it were the skeleton) of a house, before it

is lathed and plaistered.

CARIATIDES, from the Greek Kariatydes, a people of Caria: by these are meant certain figures of captive women, drest after the manner of that nation, and serving instead of columns to support the entablements.

CAR-TOOSES-TOUZES, are much the same as Modillons; only these are set under the cornice in wainscotting, and those at the eaves of a house.

CARTOUCHE, Perault says, it is an ornament of carved work, of no determinate form, whose use is to receive a motto, or inscription; the word being borrowed from the Italian Cartoccio.

CARTRIDGES, are the same as Cart toozes.

CASE OF GLASS, a case of crown-glass contains twenty-four tables, each table being circular or nearly so, and about three foot six inches, or three foot eight inches diameter.

CASEMENT, is a hollow moulding. Some architects make it 1-6th of a circle, others \(\frac{1}{2}\). Also an iron frame to windows is so called

Cast, (among workmen) a piece of timber, or a board, or the like, is said to cast, or to be cast, when (by its own drought or moisture, or by the drought or moisture of the air, or other accident) it alters its flatness and straitness, and becomes crooked.

CATADROME, a kind of engine, like a crane, which builders use in lifting up and letting down any great weights.

CATHETA, a perdendicular or plumb line, falling from the extremity of the under side of the cimatium (of the Ionic capital) through the centre of the volute.

CAVETTO, a round concave moulding which has a quite contrary effect, to the quarter round; the workmen call it mouth mouth when in its natural situation, and throat when turned upside down.

CAVAZION, a term signifying the under-digging or hollowing of the earth, for the foundation of a building. Palladio says, it ought to be the sixth part of the height of the whole building.

CAULICOLI, the carved scrolls (under the abacus) in the Corinthian capital.

CEILING, is the lathing and plaistering at the top of a room, upon the under side of the joists of the next room.

CEMENT, is a strong, sticking, cleaving, or binding mortar, of which there are two sorts, viz. cold cement or hot cement.

CHAMBERS, in a house or building, are the rooms between the ground story and garrets, so that there are in some buildings two or more stories of chambers.

CHANNEL, (in the Ionick capital) is that part which is under the abacus, and lies open upon the echinus or eggs, which has its centers or turnings on every side to make the volutes. Also the ornamental part of the Doric triglyphs, and the paving in the middle of a street, &c. are so called.

CHAPITER, signifies the top or head of a Pillar.

CHIMNEY-JAUMBS, the sides of a chimney, commonly coming out perpendicularly (tho' sometimes circularly) from the back; on the extremities of which the mantle-tree resteth.

CHIMNEY-PIECES, certain mouldings of wood, or stone, standing on the foreside of the jaumbs, and coming over the mantle-tree.

CHORD, is a line in a circle connecting the two ends of any arch.

CIMA-REC (A), or Cymaise, from the Greek Kymation, a wave, called by English workmen egce, which is of two kinds, viz. sima-recta, and cima-reversa, or the back ogee, whose beauty consists in having its height and projecture equal to each other.

CINCTURE, is a list, or fillet, at the top or bottom of a tolumn; that at the top is sometimes called Colier, and sometimes Annulus.

CILERY, a term signifying the drapery, or leafage, that is wrought upon the heads of pillars.

CISTERNA, are vessels made to serve as receptacles for rain or other water, for the necessary uses of a family.

CIRCLE, is a plain figure, comprehended under one only line, called its
—CIRCUMPERENCE, whence all the lines drawn to its centre are equal to one another.

CIRCUMFERENTOR, the name of an

Instrument for surveying land.

CLAMP, a Clamp is a kiln built above ground, for the burning of bricks; also pieces on the ends of shutters, tables, &c., are so called.

CLINKERS, those bricks are so called by some, which by the violence of the fire are run, and are glazed over.

CLOISTER, a close and separated habitation, where friars, nuns, and monks, live retired from the world: also a long place covered with a floor, or platform, supported by pillars.

COINS. See Quoins.

Cor-

Collar-Beam, a beam framed cross

betwizt two principal rafters.

Colossus, this is applied to any Figure that is far greater than the life, also a building is called a colossus, when of extraordinary bigness; as the ancient amphitheatres, pyramids of Egypt, &c.

COLUMN, is a round pillar, composed of a base, a fust or shaft, and a capital, and serves to support the en-

tablement.

COMPARTITION, by this term architects understand a graceful distribution of the whole ground-plot of a building, into rooms of office, and of reception or entertainment.

COMPARTMENT, is a particular square (for an inscription, or some other device) marked out in some ornamental part of a building.

CONCAMERATE, to make an arched roof, as in vaults, &c. to arch over.

CONCAVE, hollow and concavity is the hollowness of any thing.

CONCENTRICK, figures that have the same common center.

CONCLAVE is a closet or inner-cham-

Conduits, sewers, or gutters, to convey away the fullage of a house.

CONÉ, a Latin word, a geometrical figure, of a pyramidical form like a sugar-loaf.

Conges are the rings or ferrils, heretofore used in the extremities of wooden-pillars, to keep them from splitting, afterwards imitated in stone-work.

Console, to close up in any ornament cut upon the key of an arch, which has a projecture or jetting, and on occasion serves to support little cornices, figures, busts, and vases. It is a French word.

CONTOUR, the out-line of any member; as that of a base, or cornice, or the like: a French word.

CONTIGNATION, 2 story in building. In Latin, Contignatio, signifies the laying of rafters together.

CONTRAMURE, is an out-wall built

about the wall of a city.

COPING OF WALLS, is the top, or cover of it, made sloping to carry off the weather.

CORBEILLES, a French word, signifying a basket, is a piece of carved work, in the form of a basket full of flowers, or fruits, serving to finish some ornament.

CORBEL-BET-BIL, a shouldering piece in timber-work, jutting out like a brag-

CORBEL, holes left in the walls of ancient churches, &c. for images to stand in.

CORNICE, comes from the French Gerniche, and makes the third and upper-most member of the entablement, which is different in the several orders. The word cornice, however, is applied to every prominent or jetting member that crowns any body, and thus we say, the cornice of a pedestal, and the like. Cornices are also placed on the top of wainscot, and under the eaves of houses, &c.

CORONA, CORONICE, or CROWN-ING, these words are indifferently applied to any thing that finishes an ornament; as for instance, to a cornice or pedipediment, &c. Block cornices, are such as have a kind of plain modilion without any caps under the corona.

COVING CORNICE, which has a great casement or hollow in it, which is commonly lathed and plaistered upon com-

pass, sprockets, or brackets.

COVEINGS OF CORNER-STONES, are
those stones on the sides or jaumbs of
a chimney, they are generally of rigate
fire-stone, and their faces are hollow in
breadth, in grand buildings they are of
marble.

COUSSNET, the first stone, whence a vault or arch commences, is so called.

The little cornice, or plinth, that crowns the pier, and supports the couss-

net, is called impost. CROWN, as Corona.

CROWN POST, is that post which (in some buildings) stands upright in the middle, between two principal rafters, from which there goes struts or braces to the middle of each rafter. It is also called a king-piece, or joggle piece.
CUBICLE, a bed chamber.

CULINARY, of or belonging to the kitchen.

Culvertail, as Dove-tail.

CUPOLA, is a small room (either circular, or polygonal) standing on the very top of a building some call it a lanthorn.

CY-MACE-MACIUM, 28 Cimatium.

D

DIA

DOM

DADO, or Die, the plain parts of the Pedestal.

DECOR, or more properly decorum; this word is perfect Latin, and signifies the keeping of a due respect between the inhabitant and habitation.

DENTICLES, ornaments in a cornice, cut after the manner of teeth, (from Dens a tooth.) These are particularly affected in the Corinthian order, and the square member, wherein they are cut, is called the denticle, in Latin Denticulus.

DIASTYLE, an edifice, where the columns are placed at the distance of three of the diameters from one another. Dir, this term is applied to any square body, as the trunk or naked part of a pedestal, which is that part included between the base and cornice thereof.

DIFTERE, among the ancients, a kind of temple, or other edifice, encompassed round with a double row of columns; it signifies in Greek two-winged. The pseudo (or false) Diptere was the same; excepting, that instead of the double row of columns, this was only encompassed with a single one.

DOME, also a cupols, a round piece of architecture, (resembling the hell of a great clock) set upon the top of a building, particularly upon cathedral churches. churches, where it sometimes serves for the bell-tower; the Dome of St Paul's is weli known.

DORMANTREE, is a great beam lying cross a house; also called a Summer.

DORMER, is a window made in the roof of a house, it standing upon the rafters.

Doucine, See Cima. It is an upright

Dove-Tails, a sort of joints or hinges, so called, because they resemble the tail of a dove or pigeon,

Dove-Tailing, among workmen, is a manner of fastening boards (or any timber) together, by letting one piece into another, in the form of & dove's tail.

DRAG, with workmen, a door is said to drag, when in opening and shutting it stops upon the ground or floor.

DRAGON BEAM. Dragon-beams are two strong braces or struts, that stand - order, underneath the trigliphs, repreunder a bressummer, meeting in an angle senting drops or little bells. upon the shoulder of the king piece.

DRAPERY, a work wherein cloaths are represented : Also as Cilerie.

DRAP, this is called Larmier in French, and is the bottom of the corona : because the rain-water is by means thereof forced to fall drop by drop on the ground, dripping like tears.

DRAUGHT or Design, is the picture of an intended building, described on paper, wherein is laid down (by scale and compass) the devised divisions and partitions of every room, in its due proportion to the whole building,

Duirs are a certain kind of steps (made on a flat roof) to walk upon, a way of building much used in Italy; the roof is not quite flat, but a little raised in the middle; and those steps. or drips, lie each a little inclining to the horizon.

DROPS, are an ornament of the Doric

EGG

EMB

PAVE is the margin of the roof of a house, viz. that part of the roof that hangs over without the walls.

ECHINUS, is sometimes used to signify the quarter round; but more commonly that part of it which includes the ovum, or egg: it comes from the Greek Echinus, the shell of a chesnut.

EGGS. See anchors & quarter rounds.

ELABORATORY, a place to work in. properly a chymist's work-house or shop.

EMBOSSING, is a kind of sculpture, or engraving, wherein the figure sticks out from the plane whereon it is engraven, and according as it is more or less protuberant, is called by the Italians basso, mezzo, or alto-relievo; used by

the English, bass-relief, mean-relief, or high relief.

EMBRASURE, is the enlargement that is made in a wall on the inside of a window or gate, to give the more light, or for the more convenience of the gate or window.

ENTABLEMENT, or Entablature, by Vitruvius and Viggola, is called ornament, and signifies the architrave, the frieze, and the cornice together: it is likewise called trabiation, and is different in the different orders. The word seems borrowed from the Latin, Tabulatim, a cieling; because we suppose the frieze to be form'd by the ends of the joists which bear upon the architrave.

ENTERSOLE, sometimes called mezanine, is a kind of low story, at the top of a building for lodging servants, &c.

ENTRY, is a room designed only (or chiefly) for a passage to and fro betwixt other rooms, or from the outer door into the house.

EPISTYLE-TYLIUM. As frieze. EURITHIMIA, a term of architecture used by Vitruvius, by which he intends only that agreeable harmony that ought to be between the length, breadth, and height of each room in a fabrick.

EUSTYLE, is the best manner of placing columns, with regard to their distance, which Vitruvius made to be two diameters & a quarter; the word is compounded of Eus, good, and Stylos, a column.

EVERBROW, a list or fillet. Vide ca-

EYE, is the middle of an Ionic volute or scroll, cut in the form of a rose.

F

·FAC

FABRICK, a church, a house, or any other building.

FACE: is any member that has a great breadth, and but small projecture, as the architrave in front of a building.

Face of a Stone, by which workmen mean that superficies or plane of the stone that is to lie in the front.

FACIA, or Fascia, Mr Perault says, it signifies any flat member; as the bands of an architrave, &c. There are some who write it Fasce, grounded upon the Latin word Fascia, a large ri-

FEN

band which Vitruvius makes use of on the like occasion.

FEATHER-EDGED, boards, or planks, that are thicker on one edge than on the other.

Felling of timber, the proper season usually commences about the end of April, because then the bark rises most freely, and if there be a quantity to be felled, the Statute obliges to fell it then, the bark being so useful for the tanners.

some who write it Fasce, grounded upen the Latin word Fascia, a large ristone, made round yards, &c. See Walts. FESTOON, an ornament of carved work, in the manner of a wreath, or garland of flowers or leaves twisted together, thickest at the middle, and suspended by the two extremes, whence it hangs down with a graceful sweep.

FILLET, is any little square moulding, which accompanies or crowns a

larger.

FIRZ-STONE, Rigate Stone, called Fire-Stone, is a sort of stone very good, and much used for chimney fire-hearths,

ovens, stoves, &c.

FLEMISH-BRICKS, are a sort of bricks brought out of Flanders and used for paving; being much neater or stronger than common or clay-bricks; they are of a yellowish colour, and each brick is 64 inches long, 24 inches broad, and 14 inches thick.

FLOATING, a term used by Plaisterers for their best Ceilings.

FLOORS, a Floor is the bottom part of a room, on which we walk. Floors are of several sorts; some are of earth, some of bricks, some of stone, and some of wood. Carpenters, by the word floor, understand as well the framed work of timber, as the boarding over it.

FLUSH, a term used by Carpenters when the work is even or smooth; also in Masonry, it signifies the breaking off of any part of the stone.

FLUTES or FLUTEINGS, are the hollows made in the body of a column; the Doric, Ionic, Corinthian, and Composite columns, are commonly Fluted, or made with Flutes or Hallows, running along the body of the column, from the base to the capital.

FLYERS, are stairs made of an oblong square, whose fore and back sides stand parallel to each other; and so are their ends: The second of these Flyers stand parallel behind the first: the third behind the second, and so of the rest.— If one flight carry them not to the intended height, then there is a broad halfpace, from whence they begin to fly again as at the first.

FOLIAGE and Sculpture, is work wrought in branches and leaves.

FOOT-PACE, or, as some call it, halfpace, is a part of a pair of stairs, whereon, after four, six, or more steps, you arrive to a broad place, where you may take two or three paces before you ascend another step, thereby to ease the legs in ascending the rest of the steps.

FOUNDATION, the lowest part of a building (generally laid under ground) upon which the walls of the superstructure are raised. This word is also sometimes taken for public buildings erected for pious uses.

FOUNTAIN, an artificial Spring of (or well to contain) water in a garden; whether the water is brought in pipes of lead, &c. and commonly made to spout out of the mouths or other parts of images.

Framing of a House, is the carcase flooring, partitioning, roofing, ceiling, beams, aslering, &c. and indeed all that is done by the carpenter.

FREESE, or Erlese, a large flat member, which separates the architrave from the cornice. See its etymology under the word Zophoros.

Farsco, a way of painting or plaister-

ing (or rather both) upon walls to endure the weather, and representing birds, beasts, herbs, fruits, &c. in relief.

FRETT-WORK, a plain bordering round ceiling, picture frames, &c. being made with divers fillets or bands, and affording a great variety of figures by their turnings.

FRIGERATORY, a place to make or

keep things cool in.

FRONT or Frontispiece, the face or foreside of a house. See Portal.

FROWEY, timber is said to be frowey, when it is evenly tempered all the way, and works freely without tearing.

Funnels of Chimneys, is the shaft or smallest part of them (where they are gathered into their least dimensions) apwards.

FURRINGS, among workmen, is the

making good of the rafter's feet in the cornice. i. e. when rafters are cut with a knee, these Furrings are pieces that go strait along with the rafter, from the top of the knee to the cornice: also when rafters are rotten, or sunk hollow in the middle, and pieces, cut thickest in the middle and to a point at each end, are nailed upon them to make them strait again; the putting on of those pieces is talled Furring the rafters; and those pieces so put on are called Furrings. The same term is used for joists, which being by time sunk hollow in the middle are furred up strait.

FUST, from the Latin Furtic, a club, signifies the trunk, or shaft of a column, being that part comprehended between

the base and the capital.

G,

GAR

GABLE-END, the Gable-End of a house is the upright triangular end of the roof.

GAIN, the bevelling shoulder of the joist, or other stuff, is said to gain by being longer.

GALLERIES, are long narrow rooms, made on the sides or fronts of houses; they serve for walking, eating, and other divertisements.

GARD-MANGERS from the French, a store-house, or room to set meat in.

GLA

GAVEL, a word used by some, by which they mean the same as Gable.

GIRDING-BEAMS, is used by some workmen to signify the same as girders.

GIRDERS, are some of the largest pieces of timber, in a floor; the ends of them are, for the most part, framed into summers, or breast-summers, and the joists are framed in at one or both ends to the girders.

GLASS, a transparent body made by art of flints, sand, and ashes, and of this there are many sorts, as crown-glass, French or Normandy glass, German glass, Newcastle glass, Bristol glass, looking glass, and jealous glass; which last is of that nature that it cannot be seen thro', yet it admits of the light through it.

GOTHIC ARCHITECTURE, is that which is far removed from the manner and proportions of the antique, having its ornaments wild and chimerical, and

its profiles incorrect.

GRADATORY, is derived from the Latin, and is used to signify a place to which we go up by steps, particularly an ascent from the cloiter to the choir in some thurches.

GRAINERY, a place to lay up corn in. GRANGE, a French word, signifying

a building which hath barns, stables, stalls, and other necessary places for husbandry.

GROUND-PLAT, or Plot, a piece of ground, which a building is to be erect-

ed upon.

GROOVE, a term used by joiners, to signify the channel that is made by their plough in the edge of a moulding, or stile, or rail, &c. to put their pannels in, in wainscotting.

GUTTERING, in Carpentry, is the boarding and bearers to lay the lead on in the fronts or middle of the roof.

GUTTER-TILES, are in form as they appear at a distance, a kind of a triangle, having one side convex, but this is whilst they are flat and plain before they are bent fit for use.

H.

HFA

HAIR, the hair here mentioned is bullock's hair, such as is used in mortar for plaister.

HANGS OVER, vide Batter.

HEADERS, a term among Bricklayers, when bricks are laid endways in a wall, but when lengthways they call them Stretchers.

HEADS, a term used by Bricklayers, by which they mean half a tile in length; but to the full breadth of a tile; these they use to lay at the end of a roof.

HEALING, by this word is understood

H I.P

the covering of the roof of any building, which is of various kinds, viz. 1. lead, 2. tiles, 5. slates, 4. horsham stone, 5. shingles, 6. reed, 7. straw.

HEEL, an inverted Ogee.

HELIX, or *Urilla*, is a little volute caulicole, or stalk, under the flower of the Corinthian capital.

HINGES, are those necessary appendages by which all doors, all lids of boxes, chests, trunks, &c. make their motion, either of opening, shutting, or folding.

Hirs, are those pieces of timber which

which are at the corners of a roof, they are a great deal longer than the rafters, by reason of their oblique position, and they are placed not with a right or square angle, but a very oblique one; and, by consequence, they are not (or at least ought not) to be square at an angle (as rafters are.)

Hollow, a term by which is meant a concave moulding, being about a quadrant of a circle; by some it is called a

Casement, by others an Abacus.

HORSHAM-STONE is a kind of thin broad slate, of a greyish colour, much used in some parts of Sussex, not only to heal or cover churches and chancels, but some great houses also.

HOUSE, a habitation or place built with conveniences, to shelter a man's person and goods from the inclemencies of the weather and the injuries of ill disposed persons.

Housing, a term used by some bricklayers, for when a tile, or brick is warped, or cast crooked, or hollow in burning, they then say, such a Brick or Tile is housing: tiles are apt to be housing, or hollow, on the struck side (or that which was upmost in the mould) and bricks on the contrary side.

HYPERTHYRON, a Gr. word, signifying the lintel or cap-piece of a door-case. HYPOTRACHELIUM, or Hypotrache-

leon, the same as Frieze.

IŃT

JAUMBS, door-posts; also the upright posts at the end of window frames and chimneya, are so called. *Yambe* is a French word, and signifies a leg.

ICHNOGRAPHY, a description or draught of the platform or ground-work of a house, or other building.

IMPOST, is a term, which I understand to be the capitals of pilaters, that support arches. It comes from the Italian Imposto, surcharged or burdened with, or laid upon; take it either way, the name expresses the same thing.

INDIGO will grind very fine, and lie with a good body, and is much used in painting, &c.

INTERCOLUMNIATION, is the space between two columns, which, in the

JUF

Doric order, is regulated according to the distribution of ornaments in the frieze; but in the other orders, according to Vitruvius, is of five different kinds, viz. picnostyle, sistyle, eustyle, diastyle, and arcostyle. This the Latins express by their word Intercolumnium.

INTERDUCES, are those smaller pieces of timber that lie horizontally betwirt the summers, or betwirt them and the sill or raising.

JOYSTS, are those pieces of timber, framed into the girders and summers, on which the boards of the floors are laid.

JUFFERS, a term used by some carpenters, for stuff about four or five inches square, and of several lengths. Also quarters. KERF KERF, the sawn away slit, in a piece of timber or board, the way made by the saw is called a Kerf. KNEE, a piece of timber cut crooked with an angle, is called a Knee-piece, or Knee-rafter.

T.

LIN

LABORATORY. See Elaboratory.

LATHS for building are long, thin, and narrow slips of wood, used in tyling or ceilings, and are of three sorts, viz. heart of oak, sap laths, and deal laths.

LEAD, is a material used in buildings for flats, gutters, pipes, cisterns, sinks, &c. and is well known, so needs no description.

LINTELS (in stone and brick buildings) are the pieces of timber that lie

LOB horizontally over the tops of doors and

windows.

List and Listella, is a little square
moulding serving to crown or accom-

moulding, serving to crown or accompany a larger, or on occasion, to separate the fluteings of a column. It is sometimes called a fillet, and sometimes a square. It comes from the Italian word Lista, any kind of list or selvage. Also a board is said to be listed, when the sap on the egdes is sawn away.

Lobby, an Antichamber.

M.

MAR

MANTLE, is the head-piece on the jaumbs of a chimney-piece, either of stone, wood, or the like.

MARBLE is a kind of stone, extremely hard, firm, and solid, dug out of pits and quarries, it takes a beautiful polish, and is much used in ornaments of fine buildings, as columns, statues, chimney pieces, &c.

Of this stone there are many kinds,

MAS

as black and white marble, purple marble, Egyptian marble, black and yellow marble, statuary marble, &c.

MASONRY is a branch of architecture, consisting in the art of hewing, squaring, and moulding of stones for the use of building, or may be understood for the assembling and joining stones together with mortar.

MEM-

MEMBRETTO, a pilaster that bears

up an arch.

METORS, is the square interval between the triglyphs of the Dorick frize, which, among the ancients, used to be adorned with the heads of beasts, basons, vases, and other instruments used

in sacrificing.

The beauty of these metops consists in their regularity; that is, in their being perfect squares; and yet when they are really square, they appear to be less in height than in breadth; which is owing to the projecture of the little bandelet, wherein they terminate underneath, that hides a small part of their height; for this reason *M. le Clerc* is for making the metops a minute or 2 more in height than in breach; being of opinion, they ought rather to appear square without being so, than really be square, without appearing so.

MINUTE, is usually the sixtieth part

of a module.

MITCHELS, purbec stones for paving, picked all of a size, from fifteen inches square, to two foot.

MODEL, is particularly used in building for a pattern made in wood, stone, clay, or other matter, with all its parts and proportions in small, in order to give an idea of the effect it will have in large, when executed.

MODERN, this word, in its genuine meaning, is only applicable to such architecture as partakes partly of the Gothic, retaining somewhat of its delicacy and solidity; and partly of the Antique, whence it borfows members and ona-

ments, without any proportion or judgement.

MODULE, a measure made use of to regulate the proportions of the several members of columns: In all the orders it is the whole diameter: A module is commonly supposed to be divided into sixty equal parts, called minutes: module comes from modulus.

MODILLONS, in Italian Modiglioni, (a sort of cantalivers) are little inverted consoles under the soffit, or bottom of the drip, in the Ionic, Composite and Corinthian, cornices, and ought to correspond to the middle of the columns. These are particularly affected in the Corinthian order, where they are always enriched with carved work. In the Ionic and Composite, they are more simple, having seldom any ornament, excepting sometimes a single leaf underneath. In Latin they are called nututi.

MORESK-WORK, a kind of anticwork, in painting and carving, after the manner of the Moors (whence it has its name) consisting of several grotescoes, wherein there is no perfect figure, either of men or other animals, and wherein there is a wild resemblance of birds, beasts, trees; &c. intermingled.

MORTAR, is a preparation of lime and sand, mixed with water, serving as a cement, and is used by masons and bricklayers in buildings, and to a rood of brickwork is required a hundred and half of lime, and two load of sand; and for tiling, four bushels of lime and six or eight bushels of sand, will be sufficient for laying a thousand of tiles,

which.

which is about a square and a half: so that a square of tiling will require about 22 of lime, and about five bushels of sand.

Mosatque, or Mosaical-Work, is a curious kind of work, consisting of small inlaid pebbles, cockles, and shells of sundry colours; and (of late) likewise with pieces of glass figured at pleasure.

MOULDINGS, under this name are comprehended all those jettings, or projectures, beyond the naked of a wall. column, &c. which only serve for ornament; whether they be square, round, strait, or crooked. Of these there are seven kinds, more considerable than the rest, viz. the doucine, or cima-recta; the talon, or heel; the ovolo, or quarter round; the plinth, astragal, the denticle, and the cavetto.

MUNIONS, in carpentry, are the short upright posts that divide the several lights in a window frame.

'MUNIMENT-ROOM, a place for the keeping of seals, charters, evidences,

NAI

NAILS, in building, are small metalline members well known, but they are very numerous in their sorts, as has been shown in this treatise. The number required for lathing is about 500 to a bundle of five-foot laths, and 600 to a bundle of four-feet laths at six score for the hundred, and for flooring is required 200 to a square. Nails are made tough by heating them in a fire shovel,

NOS

or the like, and putting some tallow or grease on them.

NEWEL, the upright post that a pair

of winding stairs turns about. NICHES, the hollow places in a wall,

wherein statues are set. Noszings are part of the sides of 2 marble chimney-piece, also the edges or front parts of steps, or at the foot of a cove. &c.

OBE

BELISK, is a quadrangular pyramid, lic place, to serve as a monument of like an S. some memorable action.

OGE

OG, Ogee, or Orgive, a sort of mouldvery tall and slender, raised in a pub- ing, consisting of a round and a hollow,

OFTICE glasses, are those that are ground either concave or convex, so as to collect or disperse the rays of light; by means of which vision is improved, and the eye strengthened or preserved, &c.

ORATORY, is a closet or small apartment near a bed-chamber, furnished with a little altar, or image, for private devotion (among the Romanists.)

ORDERS, are the different forms and proportions of columns, &c. There are five orders (commonly reckoned) viz. the Tuscan, Dorick, Ionick, Cotinthian and Composite.

Or Lo, the plinth or square under the base of a column, or under the base of its pedestal.

ORNAMENTS, by which is understood all the sculpture or carved work, wherewith a piece of architecture is enriched.

ORTHOGRAPHY, signifies the front or (any other) upright side of a house; or the draught on paper, of those parts of a house.

Ovolo, is sometimes used to signify the quarter-round, but more commonly that part of it which includes the ovum, or egg.

P

PAN

PAINTING, the art of representing things in their proper colours; a work in building well known.

PALISADE, or Palisade, is an open fence either of wood or iron for the displaying of the prospect of a house, garden, &c. or in fortification.

PALLIFICATION, a term signifying the piling of the ground-work, or strengthening of the ground work, with piles of timber driven into the ground, when they build upon a moist and marshy soil.

PANNEL (in joinery) is a square piece of thin wainscoting, sometimes carved and framed, or grooved in between thicker pieces.

In masonry it is one of the faces of a it.

PAR

PANTHEON, is a temple or church of a circular form, dedicated to all the gods, or all the saints.

PANTRY, a room for the keeping of victuals, a store-room.

PARALLEL-RULER, is an instrument of wood and brass for drawing of parallel lines.

PARAPET, from the Italian parapetto, a save-breast, is a little wall, or sometimes a rail, serving either as a rest for the arm, or as an inclosure about a key, bridge, terrace, &c.

PARASTATE, pilasters which stand alone, not adjoining to the wall, and which the French call Isolees, or Insulate, from Insula, an Island, as I take

PAR.

PARGETTING, signifies the plaistering of chimney funnels, sometimes it is used to signify the plaister itself.

PARLOUR, a fair lower-room, designed for the entertainment of company.

Passage, an entry or narrow place serving for a thorough-fare into other rooms.

PAVEMENT, a lay of stone, brick, or other matter, serving to strengthen the ground of divers streets, or other places, for the more commodious walking there-

PEDIMENT, in French, Fronton, from the Latin Frons, the forehead, isan ornament that crowns the ordnance. finishes the fronts of buildings, and serves as a decoration over gates, windows, niches, &c. it is ordinarily of a triangular form; but sometimes makes an arch of a circle. Vitruvius calls it Fastigium.

PEDESTAL, is a square body with a base and cornice, serving as a foot for the columns to stand upon; and having, according to Vignola, the third part of the height of its column. It is varied in the different orders.

PEDIMENTS, are the crowning frequently seen over gates, doors, windows, and niches, and sometimes over entire orders. The ridges of houses were what partly within the wall." gave architects the first idea of this noble part.

PENTADORON, a kind of brick so called.

Perquetting, a floor laid, or composed of divers small figures, as squares, rhombs, &c.

PERIPTERE, in the ancient architecture, a building encompassed round with columns. The word comes from the Greek Peri, about, and Pteron wing.

Perrows, are steps raised before

the doors of great houses.

PERSIAN ORDER, is that which has figures of Persian slaves, to support the entablement instead of columns, as the Cariatic order has the figures of women serving for the same purpose. The former columns are usually like robust men, with long beards, and such figures are fitter to represent an unhappy slavery than those of women. The character of slavery is expressed in these figures, either by tying their hands before, or else behind their backs. Columns of this kind may very properly be used in a gallery of arms, &c. princes palaces : in which case they may be made gigantic, and their entablature Doric.

PIAZZA, commonly called Piache_ an Italian name for a portico, it signifies a broad open place or square, whence it became applied to walks or porticoes of pillars around them, like those of Covent Garden, the Royal Exchange, &c.

PIEDBOIT, is a square pillar, that is

PILLAR, is a kind of round column. disengaged from any wall, and made without any proportion; being always either too massive, or too slender; such are the pillars which support the walls of Gothic buildings, in Latin they are called Pilæ.

PIL.

PILASTERS, are a kind of half columns (standing against a wall) with bases and capitals, as columns have: but different from columns in this, that pilasters are square, but columns round.

PITCH, by this term architects understand the angle, a gable-end (and consequently the whole roof of a build-

ing) is set to.

PLATEBANDS, the lists, or fillets, being the flutings of the Ionic, Corinthian, and Composite columns. They are each in breadth a quarter of the flute. Platebands are also a square mould set at the end of an architrave of the Doric Plateband, Perault says, is a square moulding, having less projecture than height.

PLATFORM, this word is sometimes used to signify the ishnography, or draught of the ground-plot of a house, but more commonly for a broad, smooth, and open walk upon the top of any building. Platform, is also a row of beams which support the timber work of any roof, and lie on the top of a wall, where the entablature ought to be raised.

PLATFOND, a French word, for the cieling, or roof of a chamber, or other soom, &c. the same as Soffit.

PLASTIQUE, or Plastic Art, is a branch that is not only comprehended under sculpture but is indeed very sculpture itself; but with this difference, that the plasterer, by his plastic art, makes figures by addition, but the carver by subtraction.

PLINTH, is derived from the Greek, Plinthos, a square brick, and is, in architecture, a square piece, or table, under the mouldings of the bases of columns and pedestals.

Plumbery, an art belonging to architecture, it being the art of working

PORPHYRY, a fine reddish marble. streaked with divers colours. Pliny says, this kind of marble comes out of Egypt, where there are large quarries

PORTLAND STONE, is much used in building, and much softer and whiter

than purbec.

PORTAL, an ancient term in architecture, signifying a little square corner of a room shifted off from the rest of the room by the wainscot. The word comes from the French Portail. a gate, or entrance, because through it they enter into the room.

PORTAILS, the decoration of the face or front of a church, called also frontis-

piéce.

PORTICO, a kind of gallery, raised upon arches, where people walk under shelter, it has sometimes a soffit, or ceiling but is more commonly vaulted. Al-, so the front of a church, &c. where columns are detached from the building, as the west end of St Martin's, St Paul's. Covent-Garden, &c.

PRICT-POSTS and Stiles among car penters, are such as come in between

principals.

PROFILE, is a draught representing the breadth, depth, and height of a fortification or building, but not the length; which properly belongs to a plan, or ground plot; so that it is in a

manner, the same with a prospect of a place or building viewed sideways, and expressed according to the rules of perspective in such a case.

PROJECT, all mouldings, &c, are said to project, when they jut out, or are beyond the superficies.

PROPORTION, is the justness of the members in each part of a building, and the relation they bear to the whole.

Publics, pieces of stuff, to do the office of levers, or hand-spokes.

PULVINATA, a frieze, swelling like a

pillow.

Punchins, short pieces of timber, placed under some considerable weight to support it. They commonly stand right between the posts, they are shorter and slighter than either principal posts, or prict posts; those that stand on each side of a door, are called door-punchins.

PURLINS, those pieces of timber, that lie a-cross the rafters on the inside, to

keep them from sinking in, in the middle of their length.

Purbec-Stone, is a hard grayish stone, almost like Sussex perties. They

are used for pavements.

PUTLOGS, pieces of timber, or short poles, (about seven foot long) used by masons and bricklayers in building of scaffolds to work on. The putlogs are those pieces which lie horizontal to the building, one end lying into it, and the ather end resting upon the ledgers, which are those pieces that lie parallel to the side of the building.

Pycnogryll, this term is used, when the columns are ranged so close to one another, that the intercolumniation does not exceed a diameter and an half.

PYRAMID, from the Greek, Pyr, fire, or flame, this being pointed like that. It is a solid body, whose base is either square, triangular, or polygonous, and which from that base diminishes continually to its vertex or top.

PYLLING, the ground to foundations.

Q

QUARRY (of stone) a place whence
UARRY (of stone) a place whence
stones are dug out, or (of glass)
piece of glass cut in a diamond form.
Quarries of glass are of two kinds, viz.
square and long; and these again are
of different sizes, as 8's, 10's, 12's, 15's,
18's, and 20's; that is, 8 quarries of 8's,
make a foot of glass, and so does 10
quarries of 10's, 12 of 12's, &c. But all

quarries, of what size soever, are cuts of one cort of angle, for the square quarries, and another for the long quarries; the acute angle of the square quarries being seventy-seven degrees and nineteen minutes; and the acute angle of the long quarries, sixty-seven degrees and twenty-two minutes.

QUARTERS, all those slight upright

pieces between the punchins and posts, which serve to lath upon, are called quarters.

QUARTER-ROUND, by this name the workmen call any moulding, whose contour is a circle, or approaching to a circle; using this term, wherever the architects use that of egg, or ovelo.

QUIRK, signifies a piece taken out of any regular ground-plot or floor; as if . the ground-plot were a square, or an oblong, and a piece be taken out of one corner of it, for a court, or yard, that piece so taken out is called a quirk.

QUOINS, or Coins, the corners of brick or stone walls: Also the stones in the angles of buildings, whether plain, rustic, or otherwise.

QUADRELLS, a sort of artificial-stones. (so called from their form,) they being square, made of a chalky, whitish, and pliable earth, and dried in the shade.

REP

RUS RETURN, the side that falls away

RAFTERS are those pieces of timber, that (standing by pairs, on the raising) meet in an angle, at the top, and compose the roof of a building.

RAISER, a board edge - ways, under the foreside of a step.

RAISING-PIECES, are pieces that lie under the beams upon brick or timber, by the side of the house.

RANGE; the side of any work that suns strait, without breaking in angles, is said to range, or run range: Thus . the rails of one strait side of wainscotting is said to run range.

REPOSITORY, a store-house, or place to keep things in; more peculiarly by architects it is used to signify such places as are built for the laying up of rarities, either in painting or other arts.

from the fore-side of any strait work is called the return.

RIDGE, the meeting of the rafters on the top of the house is called the

ROOF, the covering of a house; but the word is used in carpentry, for the timber-work of the covering.

Rose, is an ornament cut in the spaces which are between the modillons. under the plat-fonds of cornices, and in the middle of each face of the abacuse in the Corinthian and Composite capi-

RUSTICK, a manner of building quite rude, rather in imitation of nature, than

according to the rules of art.

SAGITTA, in Italian, Sagitta, (an or the art of rightly contriving draughts arrow) signifies what we call the

key-piece of an arch.

SALOON, is a kind of hall in the middle of a house, or at the head of a gal. lery, or a large apartment, which ought to have a symmetry on all its sides; and as its height usually takes in two stories with two rows of windows, the bottom of its plat-fond ought to be arched; as is practised in some of the palaces in Italy.

SAFFITA, or rather Soffita or Soffit. an Italian word (from Subfixum in Latin) a sort of ceiling. In ordinary buildings it is taken for the boards over the tops of windows, opposite to the window-boards at the bottom. In great edifices it signifies the cieling or wainscot of any apartment, formed by cross beams or flying cornices, and having the square pannels of its compartments enriched with sculpture, painting, and gilding, as we may observe in the basiliques and palaces of Italy.

SAND, is a fine, hard, gravelly earth, of great use in building and other works.

There are three sorts of sand, distinguished by the places whence they are drawn, viz. pit-sand, river sand and sea-sand, and is a principal ingredient in making mortar.

SAWING, the application of the saw in dividing timber, &c. into boards.

SCANTLING, the size that any timber is designed to be cut to.

SCENOGRAPHY, from the Greek Skene, a tent or tabernacle; and Grapho, to draw or describe, is a model or description of the front and sides of a house; in architecture. SCIMA-REVERSA, an O. G. with the

hollow downwards. Vide O. G.

SCOTIA, a member of architecture; it is hollow like a semi-circle. It is particularly placed in the bases of columns, between the torus, and the astragal, and sometimes it is put under the drip, in the cornice of the Doric order. Scotia, from the Greek Skotos, darkness, signifies, says M. Perrault, an hollow obscure moulding between the torus of the base of a column.

SCRIBE, a term used by carpenters and joiners, when they are to fit one side of a piece of stuff against the side of some other piece of stuff, and the side of the piece they are to fit is not regular.

SCULPTURE, the art of carving in wood or stone. &c.

Sewers, are conduits or conveyances for the soilage and filth of a house.

SELLS, are of two kinds, viz. groundsells, which are the lowest pieces of timber, in a timber building, on which the whole superstructure is erected. And window - sells, commonly called window-soils, which are the bottom pieces in a window-frame.

SHAKY, or Shaken, such stuff as is cracked, either with the heat of the sun, or the drought of the wind, is called shally or shaken stuff.

SHINGLES, are small pieces of wood, or quartered oaken boards sawed to a certain scantling; but they are more usually cleft to about an inch thick at one end, and made like wedges, about four or five inches broad, and eight or nine and in some places twelve inches long. They are used to cover houses, but more commonly churches and steeples with, instead of tiles or slate.

SHINGLING, the laving of Shingles. SHOULDER, among carpenters, is the

sides of batments or a tennon.

SKIRTING-BOARDS, are the narrow boards fitted round the under-side of wainscot against the floor.

SLABS, the out-side sappy planks, which are cut off from the sides of tal of any column. timber: also the foot-pace to a chimney-piece is called a Slab.

SLATING, is the covering of houses'

with slate.

SLEEPER, in a roof, is the oblique rafter that lies in a gutter.

SLUICES, vents or drains for water.

Solive, a French word, signifies a joist, rafter, or piece of wood, either slit or sawed, wherewith the builders lay their ceilings.

SPIRA, is properly Latin, for the fold of a serpent laid at rest, or the coil of a cable-rope, &c. It is sometimes used for the base of a column, this making a figure not unlike those.

SQUARE, a certain measure, made use of in measuring several artificers works, consisting of one hundred super-

·ficial feet.

STAIRS, are of various sorts, as strait-flyers, square-flyers, triangularflyers, french-flyers, winding-stairs, and mixt stairs.

STATUES, are imbossed figures, either in stone; metal, or wood, representing some person distinguished by his birth or merit. &c. and either serv" ing as an ornament of a palace, or exposed in some public place, to perpetuate the memory of the person it is intended to represent.

STILES, in joinery, the upright pieces that go from the bottom to the top in

any wainscot, or the like.

STILATORY, the room that a still or timebeck is set up in, for distilling strong waters, &c.

STILOBATUM, the body of the pedes-

(59)

STONE, is a hard, solid, mineral body, neither fusible nor malleable, formed in succession of time in the body of the earth.

STOVE; a hot-house for preserving exotick plants, also a kitchen term for a sort of furnace where they prepare

ragouts, &c.

STRAIT, a term used by bricklavers. it is half (or more or less than half) a tile in breadth, and the whole length. They are commonly used at the gableends, where they are laid at every other course, to cause the tiles to break joint, as they phrase it; that is, that the joints of one (course) may not answer exactly to the joints of the next course, either above or below it.

STRINGS, are those timbers which

support the steps of wooden-stairs. Sturr, the wood that joiners work upon, they call, in general, Stuff.

STYLDBATE, the same as pedestals. a Greek word, from Stylos, a pillar, and basis, the base or foot thereof.

SUMMER-TREE, a beam full of mortises for the ends of joists to lie in.

Sym-

runs between the parts of a building two first consists of two diameters, or and the whole.

Systols, is that manner of placing

SYMMETRY, is the comparison that columns, where the space between the four modules.

THE

TABERN, a Cellar.

TALON, the same as heel; a mould-

ing in architecture.

TAPER, all sorts of stuff, or work, that is smaller at one end than the other, and diminishes gradually from the biggest end, is said to be taper.

TARRAU, Terras, an open walk, or gallery: also a flat roof on a house; also a kind of a coarse plaster, durable

in the weather. TASSELS, pieces of timber that lie under the ends of the mantle-tree.

l'ENNON, a square end of a piece of timber fitted into a mortise.

TETRAORDON, a kind of brick so called.

THATCHING, is the covering of the roof of a house or barn with straw or reed.

THEATRE, is a public edifice or place, whereon plays or shews are exhibited to the people; as in Drury-Lane, Covent-Garden, or Lincoln's-Inn-Fields theatres.

THERMES, or Termes, a French of boundaries, or land-marks, which they used to represent in a human fi-

ТІМ gure with half a body, as if it proceeded out of a sheath or case. Those they fixed in the earth as land-marks. In architecture they serve as a kind of symbolical column.

THOROUGH-LIGHTED, rooms are said to be thorough-lighted when they have windows at both ends.

TILES, in building, are a sort of thin artificial stones, used in the roofs of houses, &c. but more properly they are a kind of fat clayey earth, moulded together, and dried and burnt in a kiln.

There are various kinds of Tiles. known by several names, as plain, thack. ridge, roof, crease, gutter, pan, crooked, flemish, corner, hip, dormar, scallop, astragal, traverse, paving, and Dutch tiles.

TIMBER, includes all kinds of wood, felled and seasoned, or those kinds of trees, which, when so prepared, are made use of in building by the Carpenter. Joiner, Turner, &c. and which chiefly are Oak, Elm, Beech, Ash, Fir. which is also called deal; there is also -word, from Terminus, the Roman god 'Walnut tree, Chesnut-tree, Poplar, Aspen, Alder, Lime-tree; &c. but these are not accounted timber. TO- TORUS, a large round moulding, in the bases of columns; the word comes from the Latin Torus, a bed; the figure of this moulding being not unlike that of the side of a quill.

TRANSOM, the piece that is framed across a double-light window.

TRAVERS, a term in joinery, signifying to plain a board (or the like) agross the grain.

TRYGLYPH, the word is originally Greek, and signifies a hollow graveling, like furrows or gutters. In architecture, Triglyphs are those kind of stops in the Doric frieze between the metops.

TRIM, when workmen fit a piece in. to other work, they say they trim in a piece

TRIMMERS, those pieces of timber framed to the joists, against the ways for chimneys and well-holes for

TRUNK, from the Latin Truncus, signifies the fust or shaft of a column, and the die of a pedestal, and is also used for bringing down water from the house top.

Tusk, a bevel shoulder, made to strengthen the tennon of the joist, which is let into the girder.

V.

V. E S

VALLEYS, the gutters over the sleepers, in the roof of a building.

VAULT, is a piece of masonry, arched without side, and supported in the air, by the artful placing of the stones which form it, its principal use being for a cover or shelter; few houses in modern huildings are without them.

VESTIBULE, among the ancients, was a large open space before the door, or at the entry of a hoase, which they call Arrium Populatum and Vestibulum, being dedicated, as Martinus tells us, to the goddess Vesta; whence he will have the word derived, i. e. Vesta Stabulum; it being usual for people to stop here, before they went within doors.

V O U

UNDER-PINNING, by this term is meant the bringing it up with stone or brick under the ground sells of a building.

VOLUTE, from Volvo, to fold, is one of the principal ornaments of the Jonic and Composite capitals, representing a kind of bark, wreathed, or twisted into a spiral ecroll.

URN, comes from the Latin, Urna: a vessel to draw water in, and signifies a low wide vase, serving as a crowning over balustrades, and as an attribute to rivers, river gods, &c. in the grottos and fountains in gardens.

Voussoins, the stones that form the arch; a French word.

WAIN-

XIAINSCOT, the panneled work round about the walls of a room.

WAINSCOTTING, the making and setting up of wainscot.

WALLING, the making of walls, of what kind soever, is called walling.

WASH-House, a room to wash in.

WATER-TABLE, in stone or brickwalls, is a sort of ledge, left out of the wall, some eighteen or twenty inches, more or less, above the ground; at abated, or taken in, on each side, the thickness of a brick, in brick-walls,

namely, two inches and a quarter, thereby leaving that ledge or jutty that is called a water table.

Weather-Boarding, a term in carpentry, signifying the nailing up of boards against quarters.

WEATHER-TILLING, is the tilling the

upright sides of houses. WELL-HOLE, the space left in a floor for the stairs to come up through.

WITHS, these are used by thatchers which place the thickness of the wall is to bind their thatching rod to the raf-

XYS

either covered or open, wherein the Ath- derived from Zythin, to polish.

XYS

XYSTOS, among the ancient Greeks, leta used to exercise themselves in runwas a portico of uncommon length, ning races and wrestling. The word is

z o c

an Italian word, and signifies a sort English, Socle or Zocle.

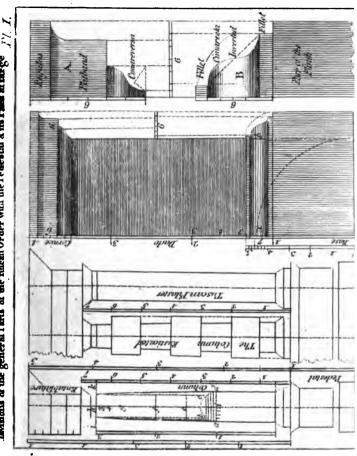
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70CCOLO, the same as plinth, it is bases of pedestals, &c. it is called in

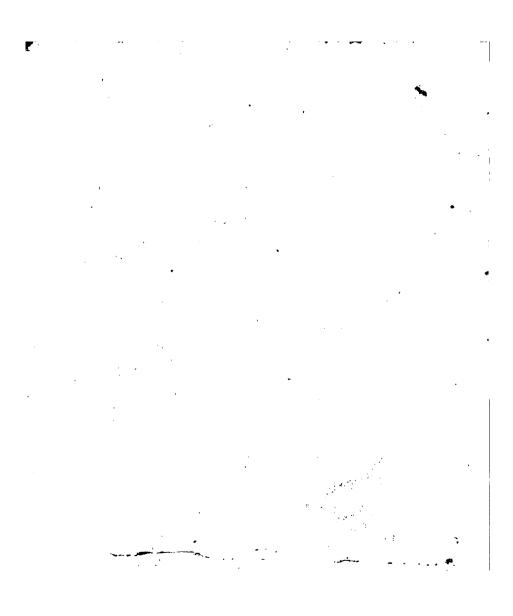
of wooden shoes, or sandals, from the Zorhoros, the same as frieze, a Latin Soccus, the buskins wore by the . large flat member, which separates the ancient actors. In architecture, it is a architrave from the cornice. It is derivsquare body, less in height than breadth, ed from the Greek Zopohoros, (i. e.) and placed under the mouldings of the animal-bearing, it being usual for animals to be represented upon it,

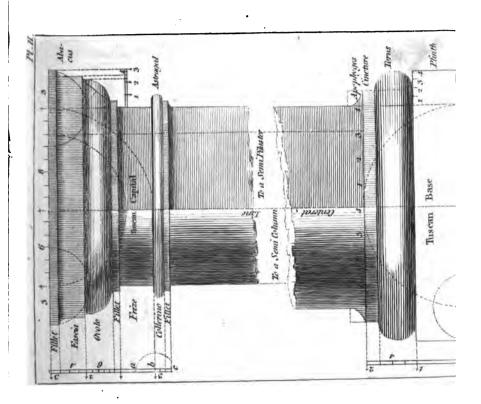


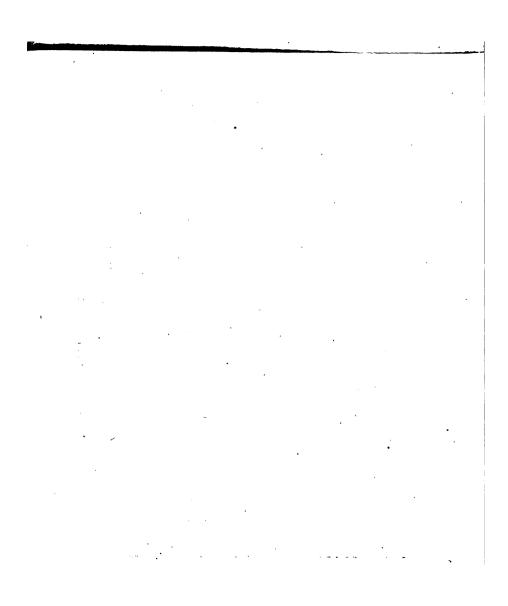
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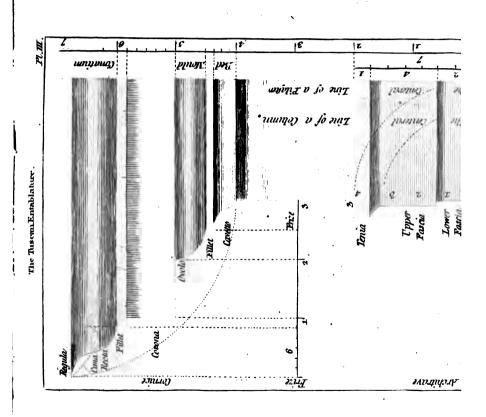


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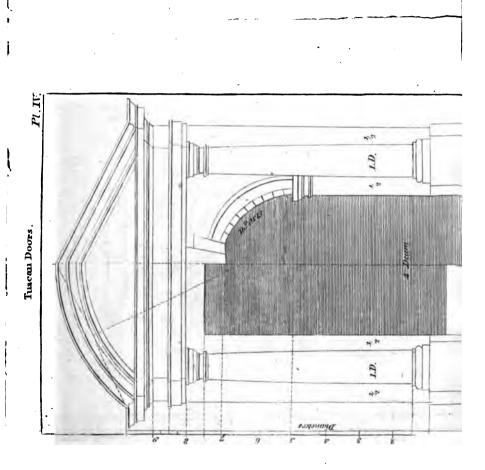


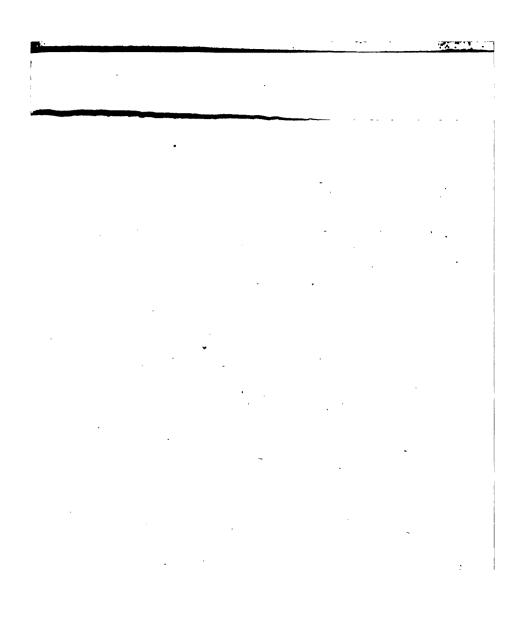


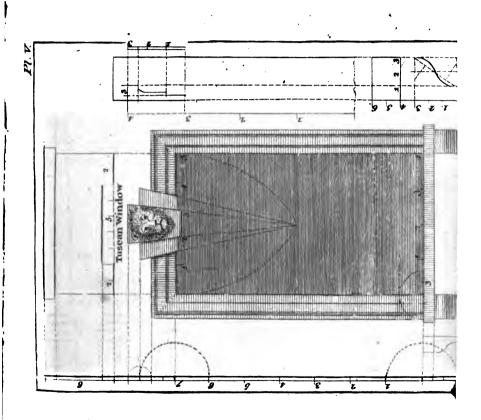
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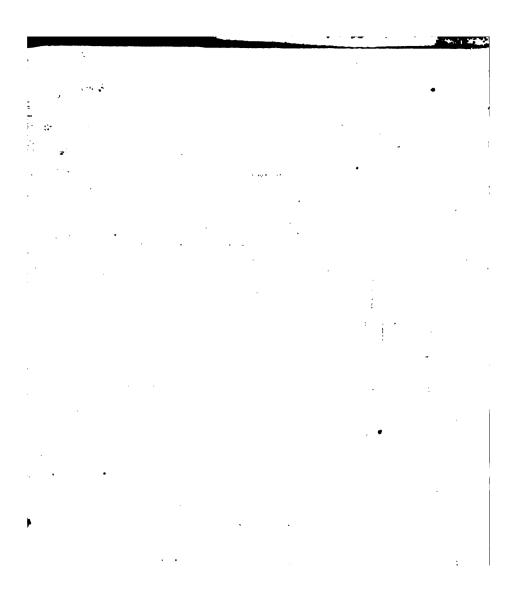
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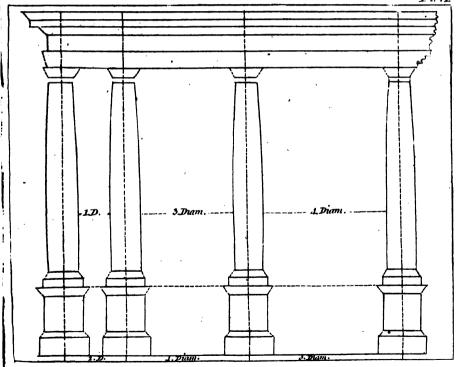






Tuscan Intercolumnations for Portico's Colonades &c.

Pl.VI



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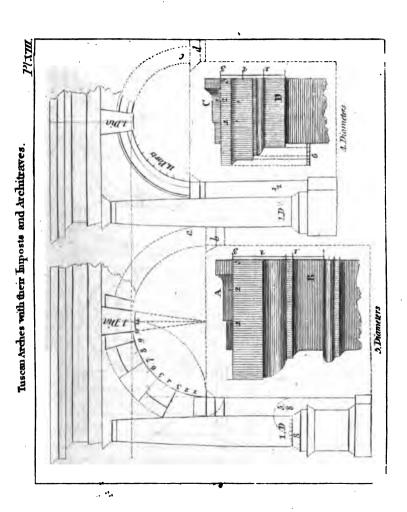
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Diameters

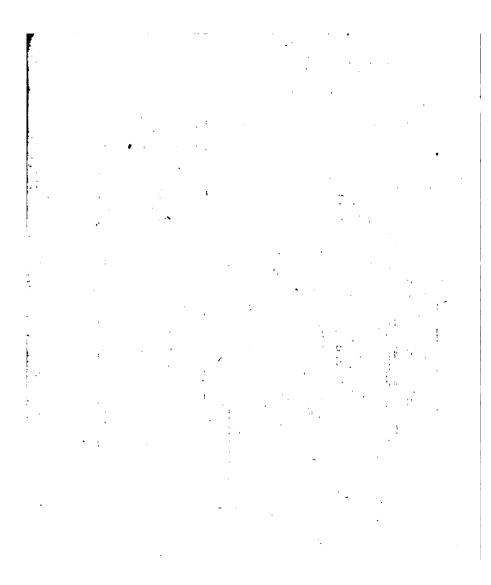
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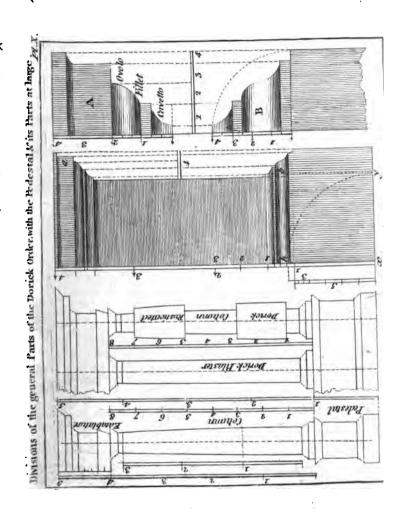
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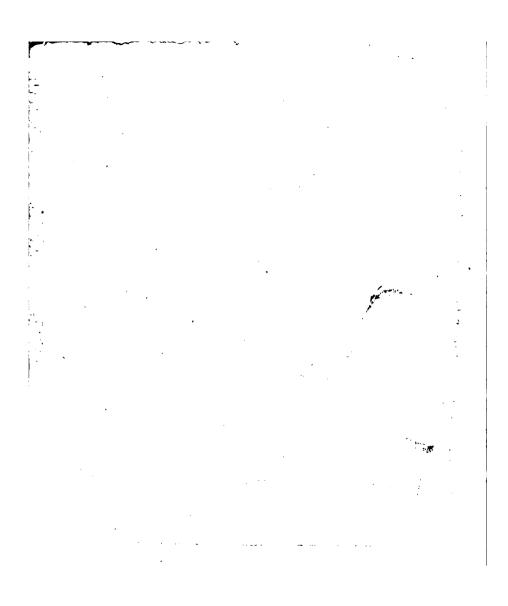


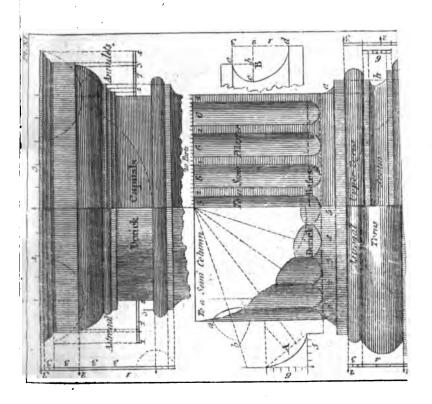
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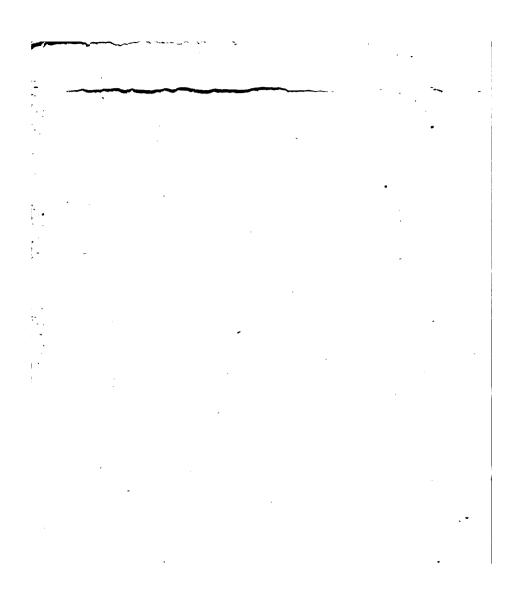
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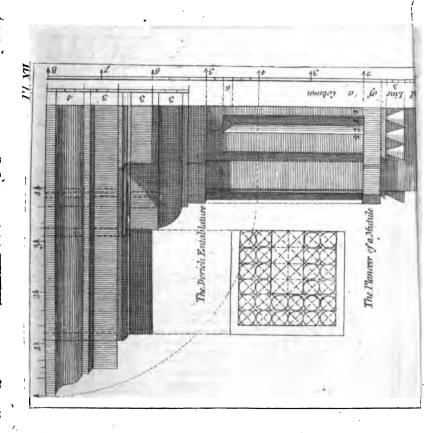


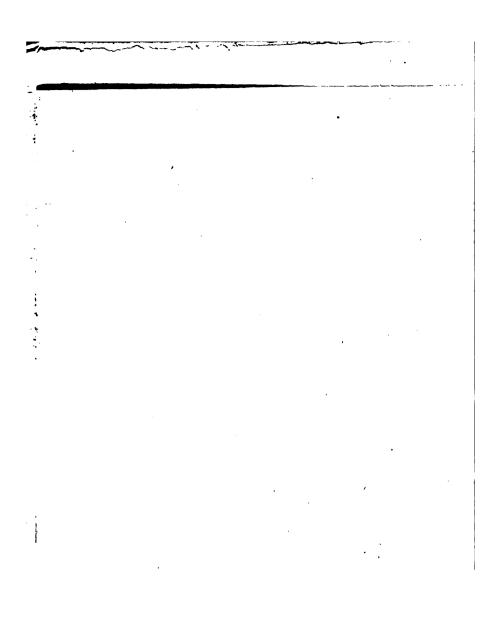






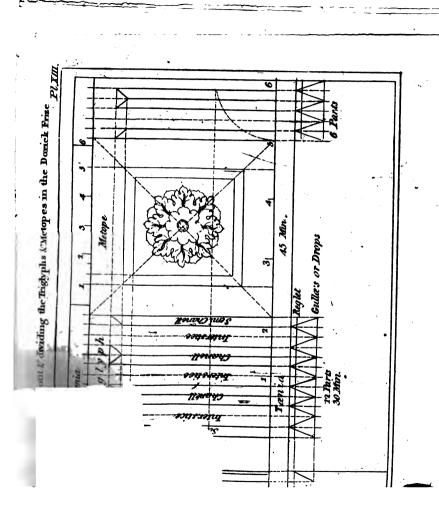




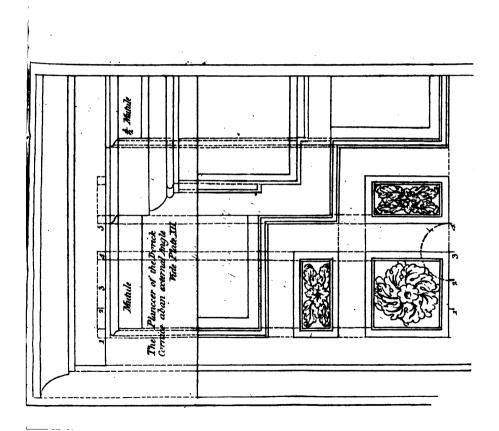


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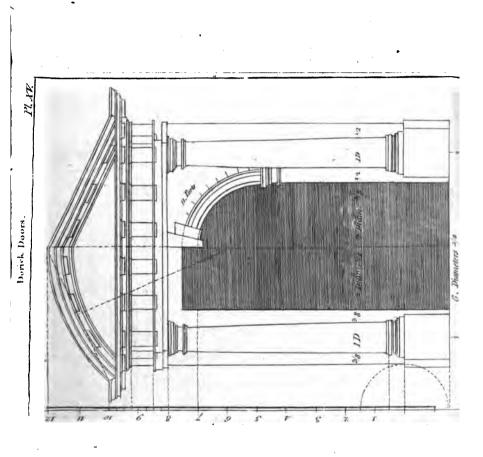
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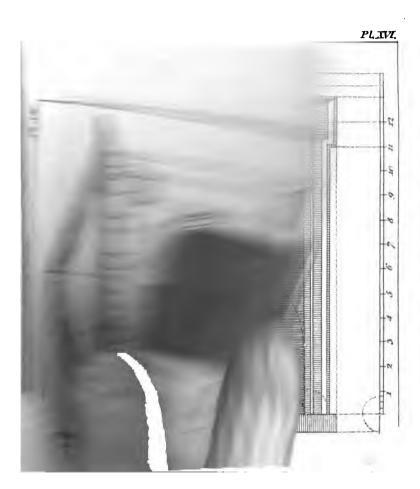
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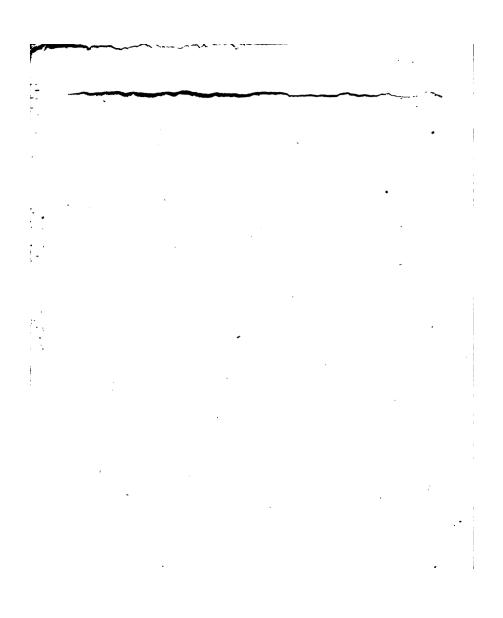
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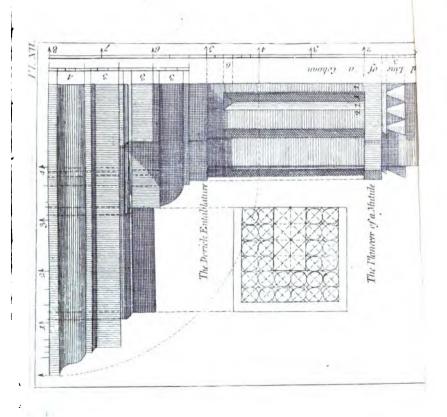
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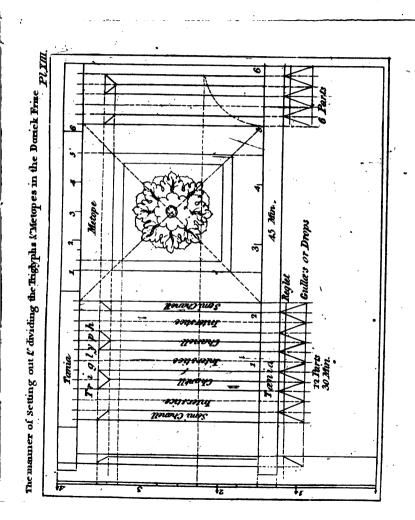






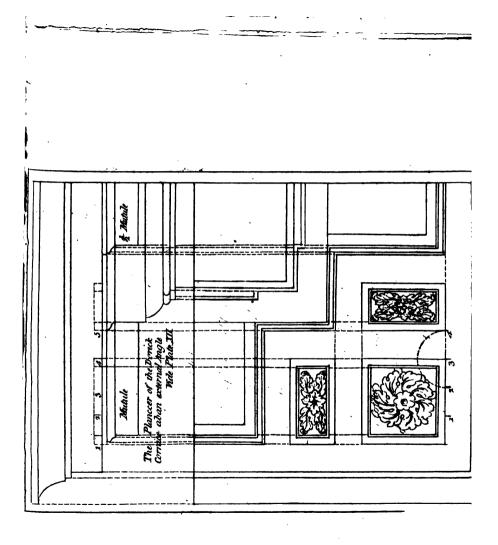


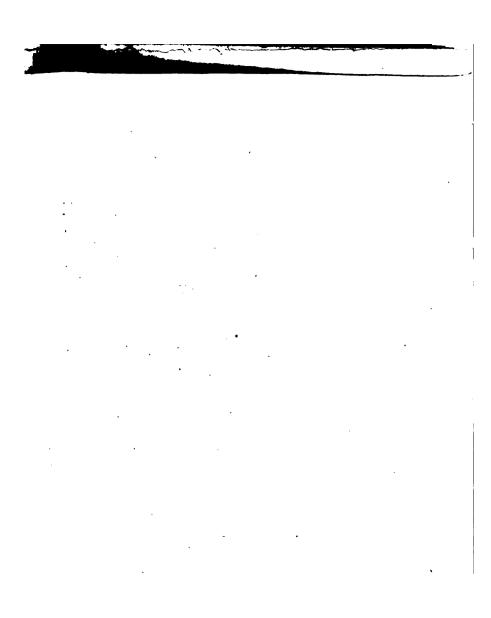


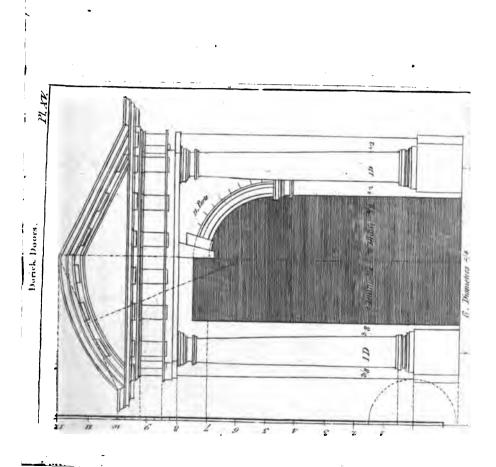


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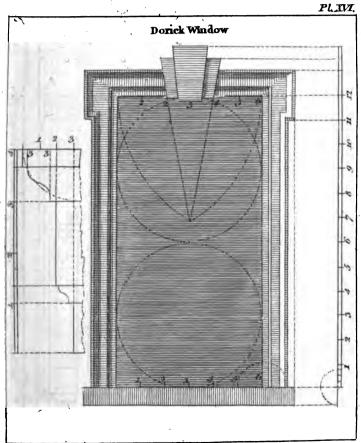
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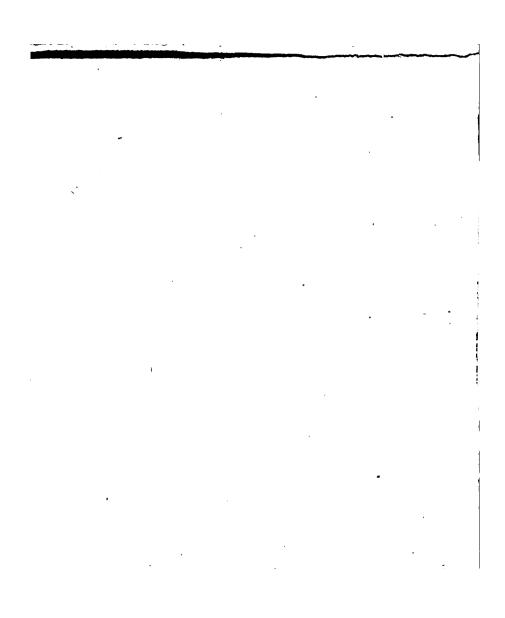




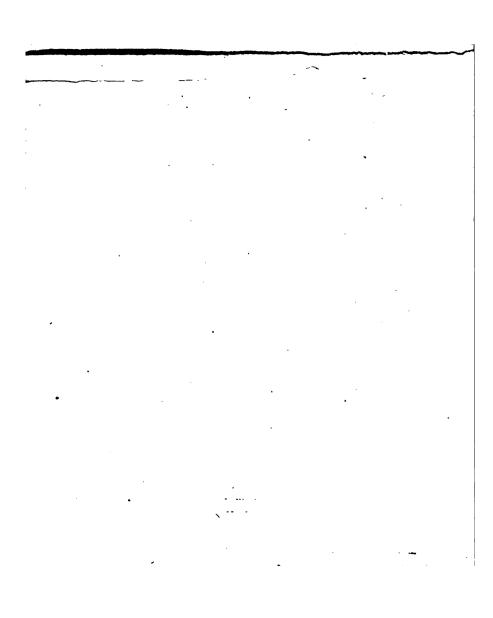


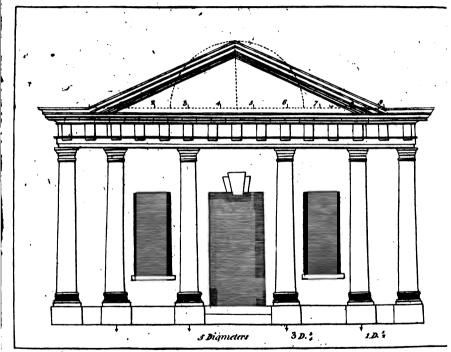
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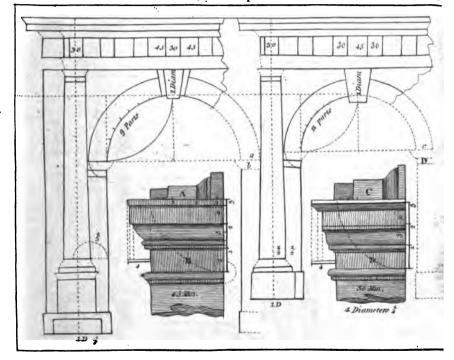


PL XVII. Dorick Intercolumnations for Ibrucos Colonades &. 30 45 30 45 30 45 30 45 30 5. Diameters is S 1.D. 3 * 2. D.

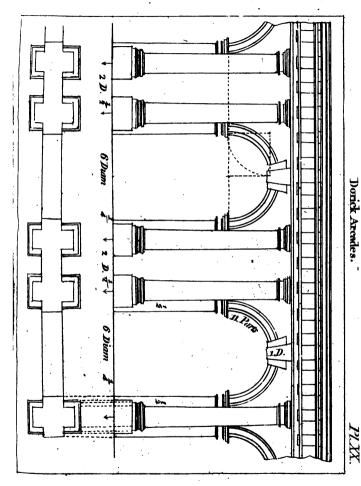




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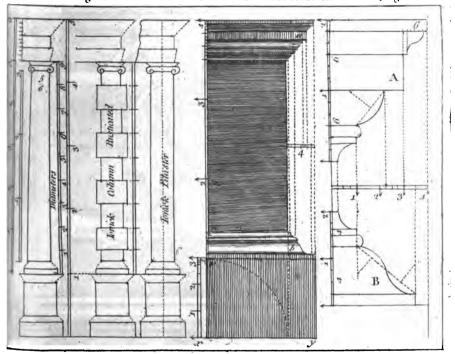


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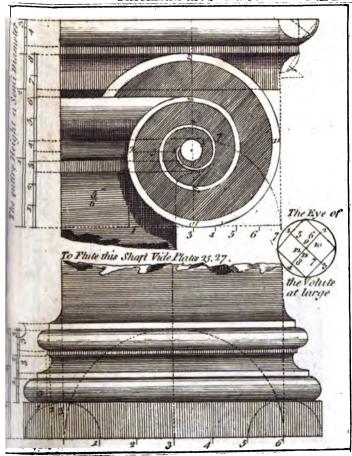
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Divitions of the general Parts of the Tonick Order with the Pedestal Kits Parts at large. PLXXI



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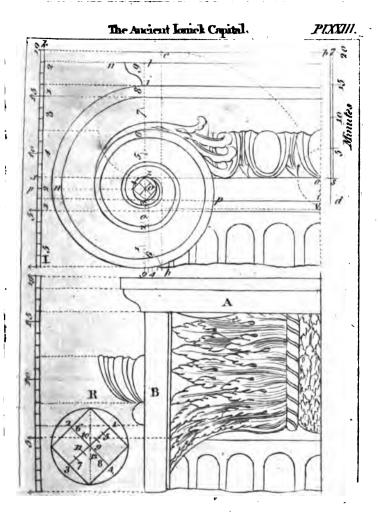
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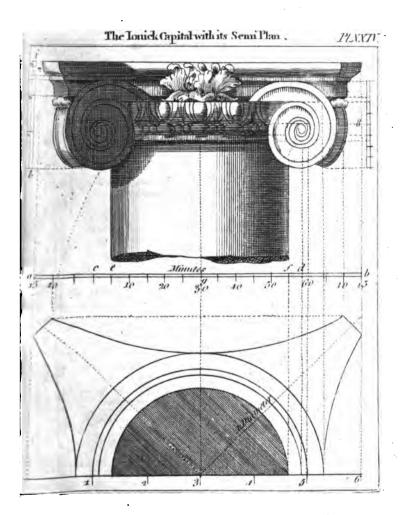
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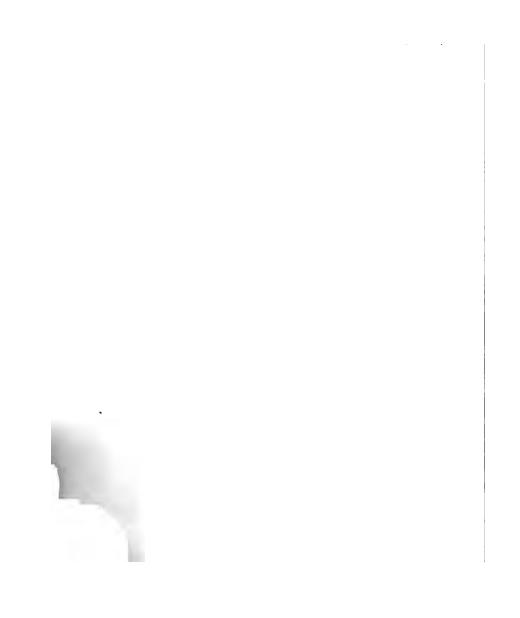
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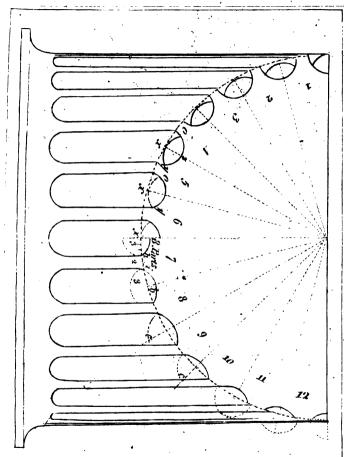
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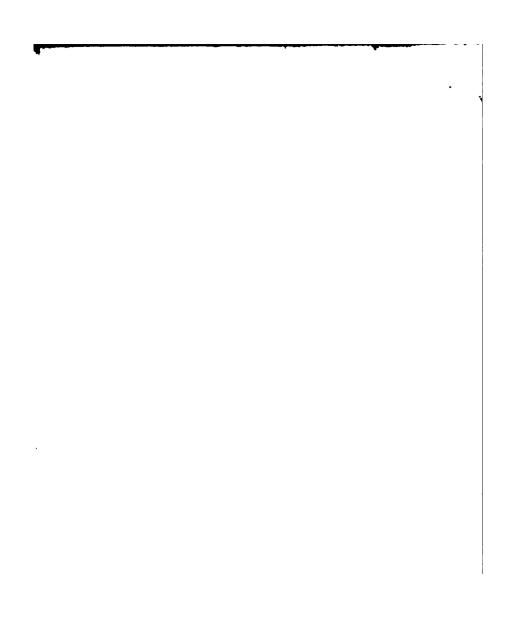
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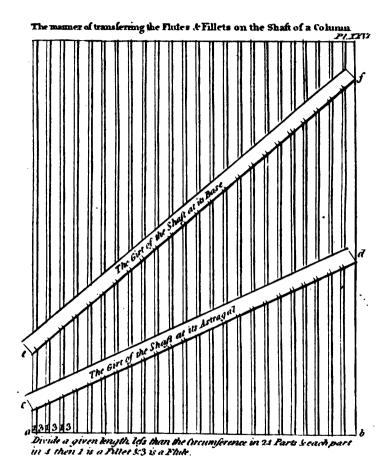


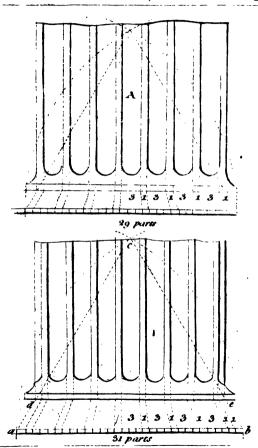




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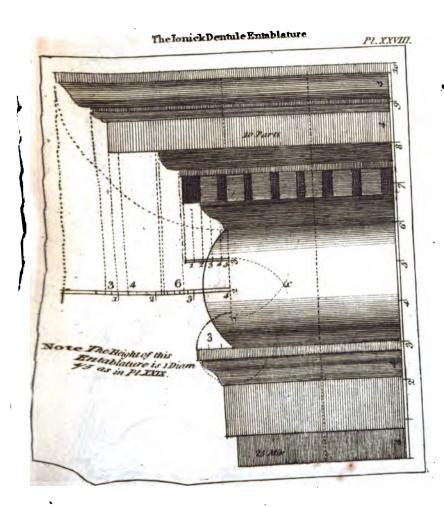






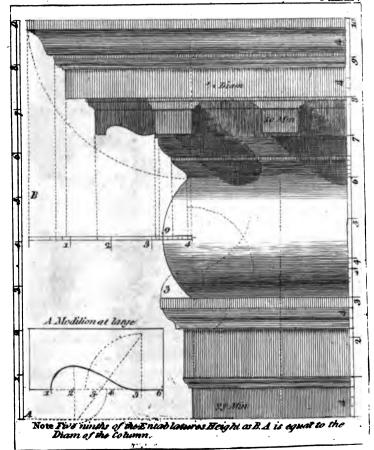


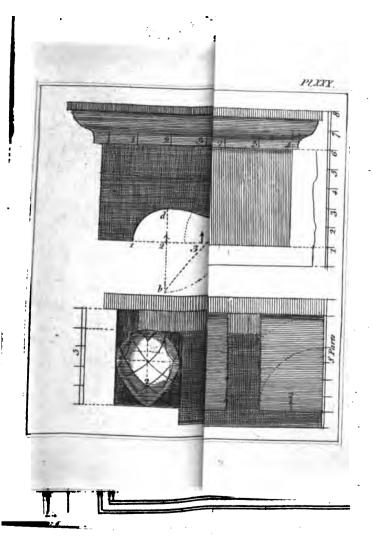
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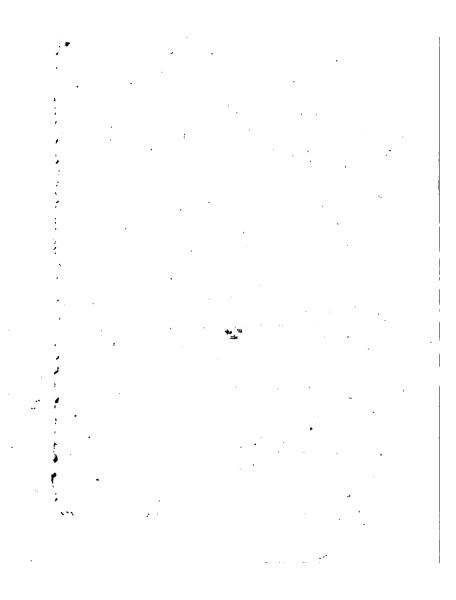


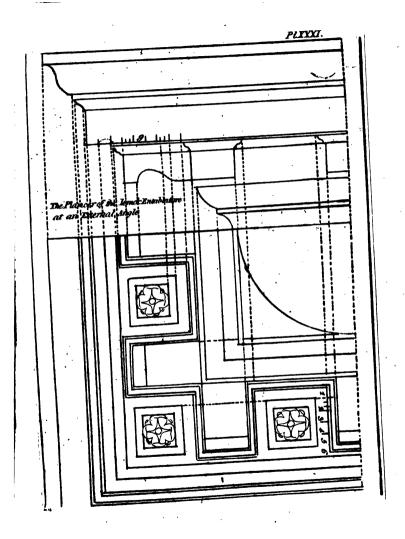
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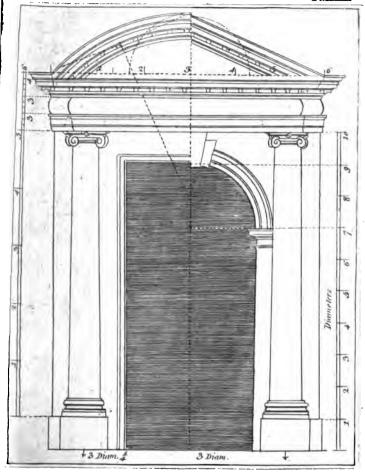




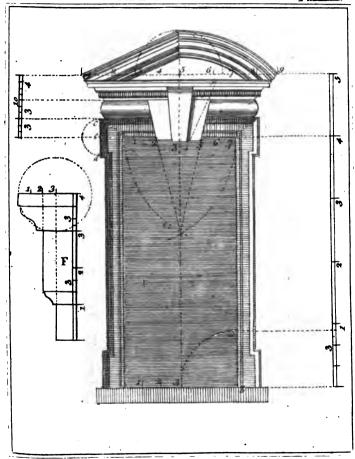




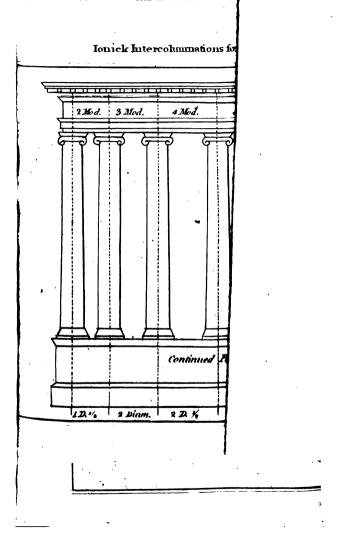
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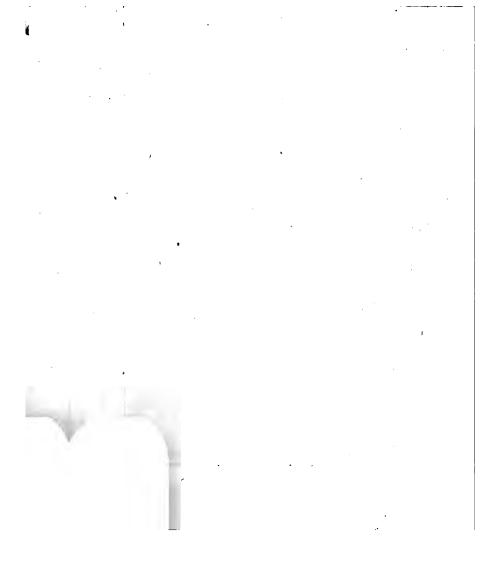
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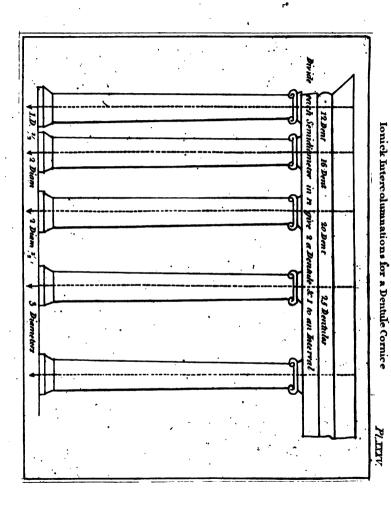
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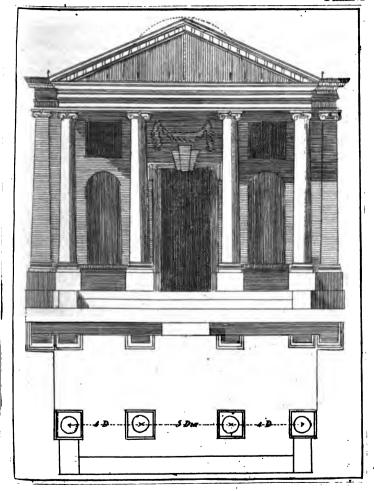
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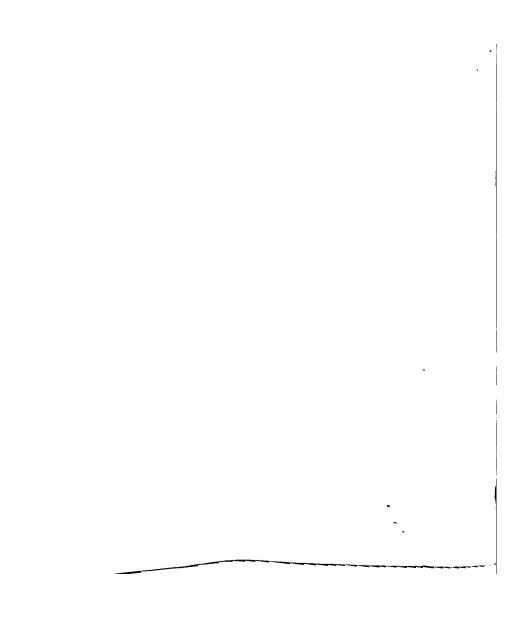


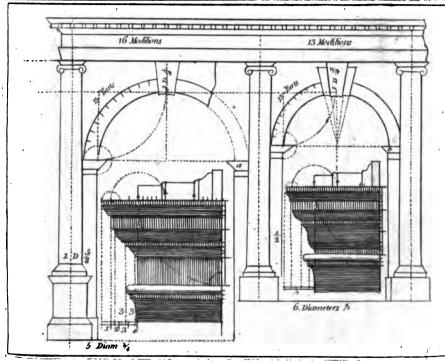


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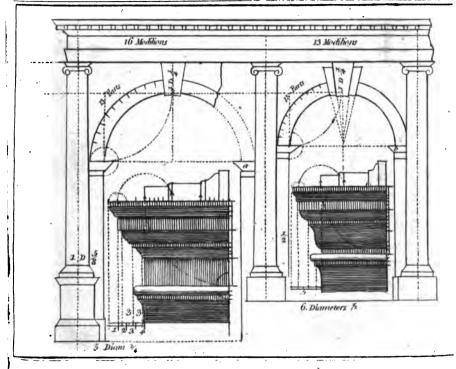


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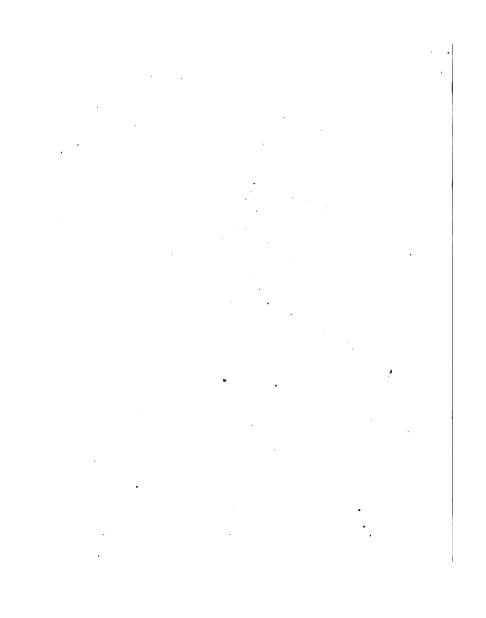
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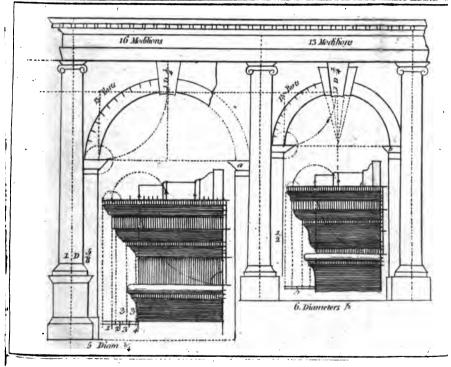
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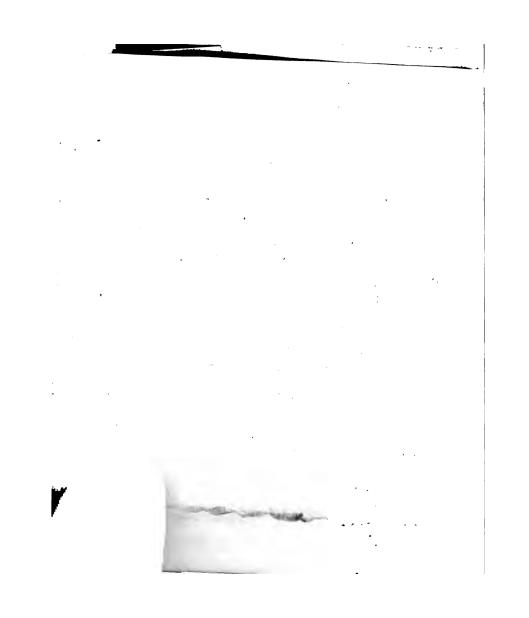


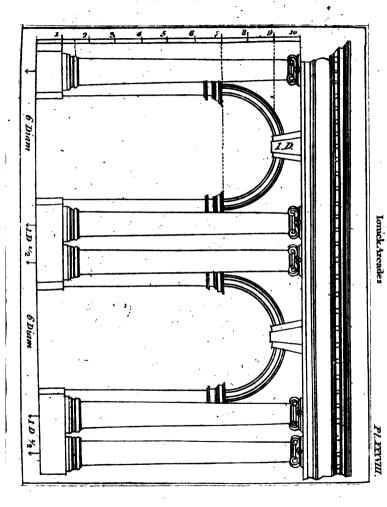






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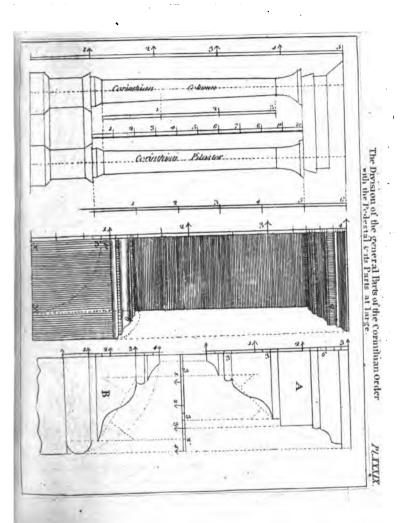
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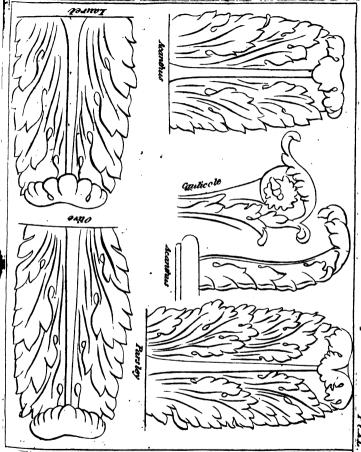
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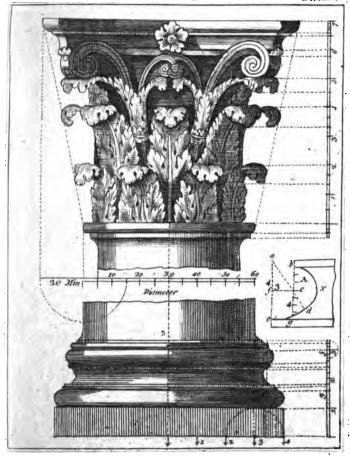
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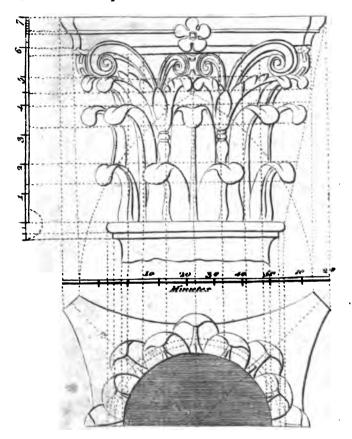


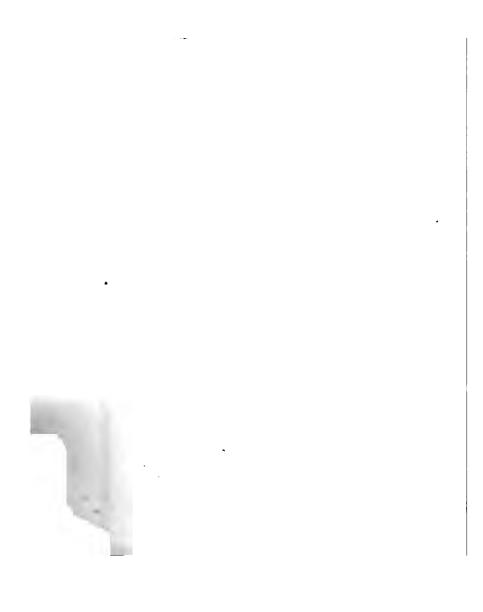
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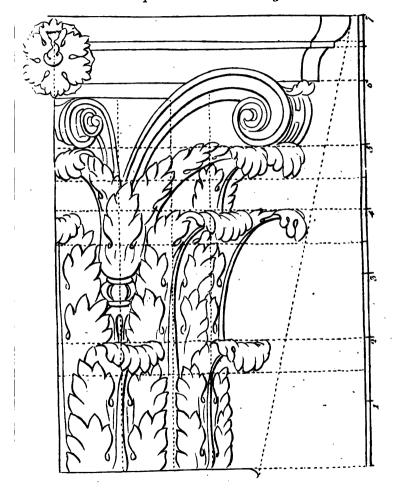
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The Corinthian Capital with its Plan for a Column PL. ILH.

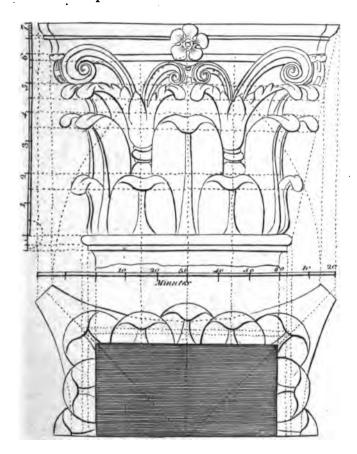






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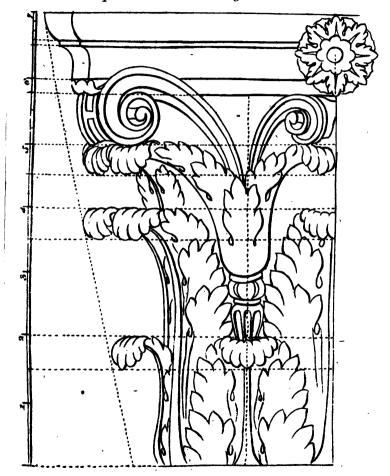
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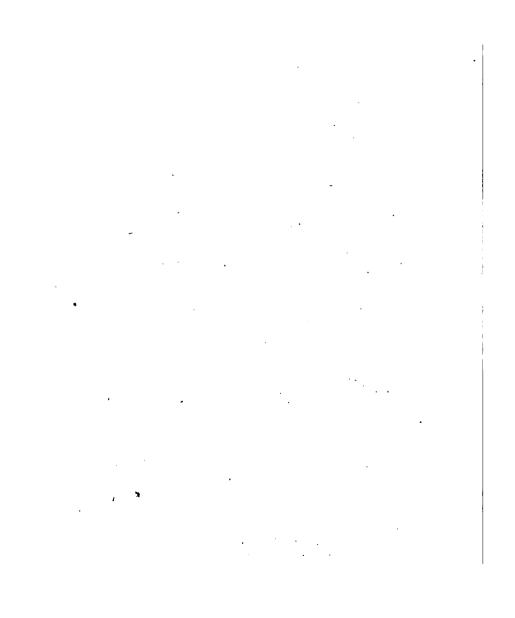


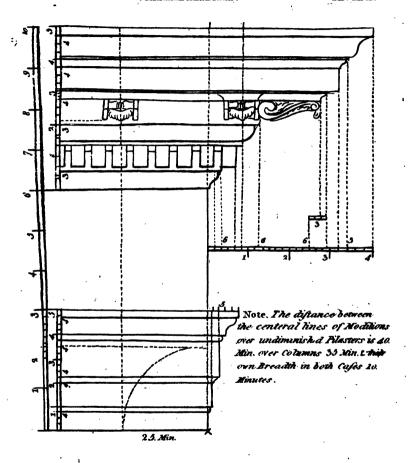
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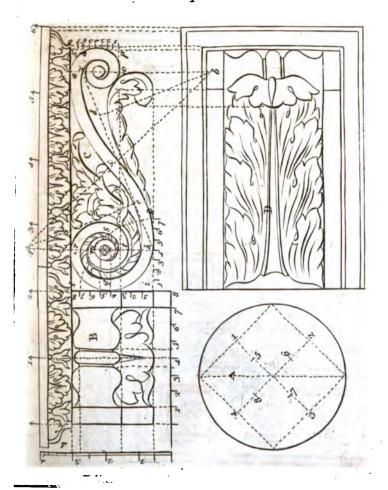




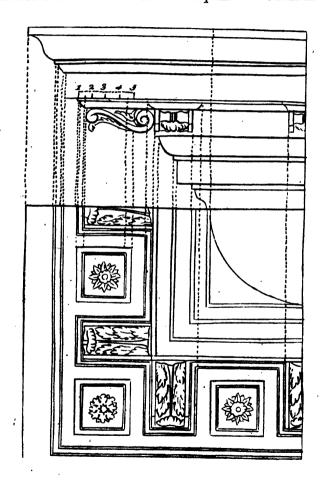
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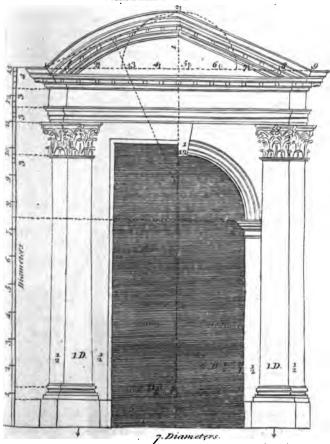
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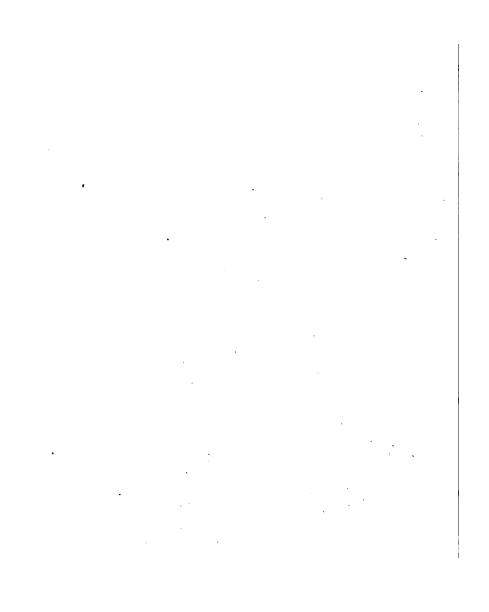


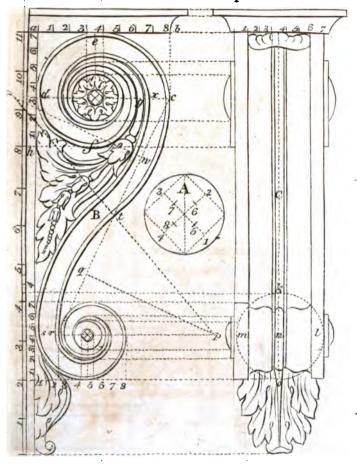
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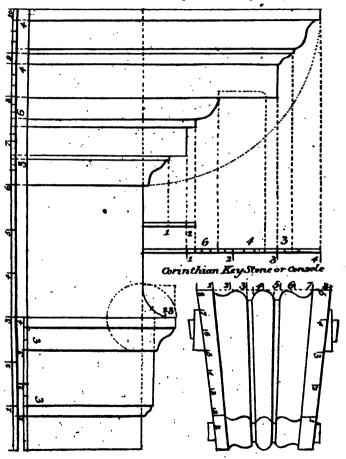


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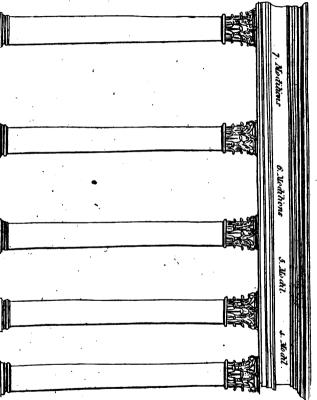
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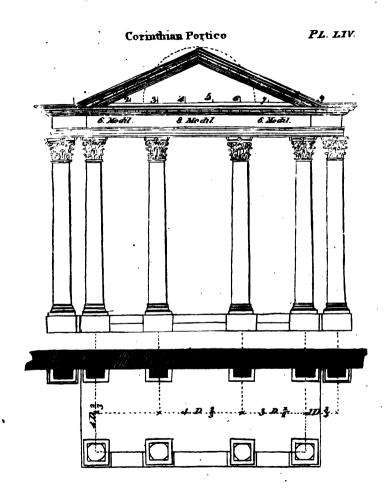


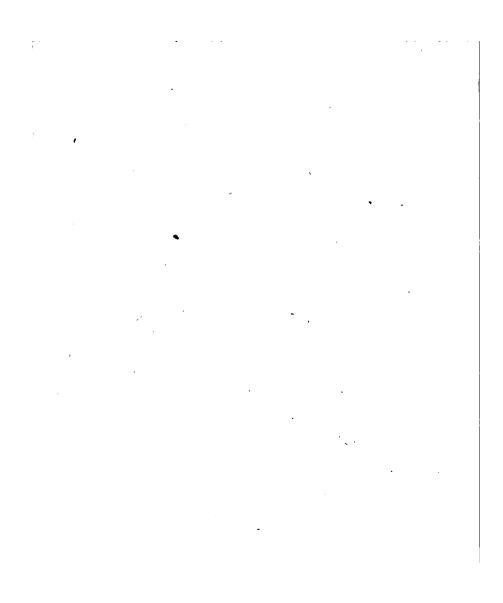
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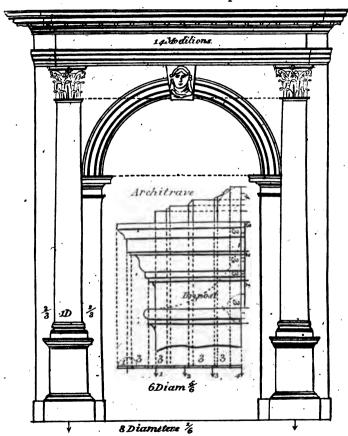
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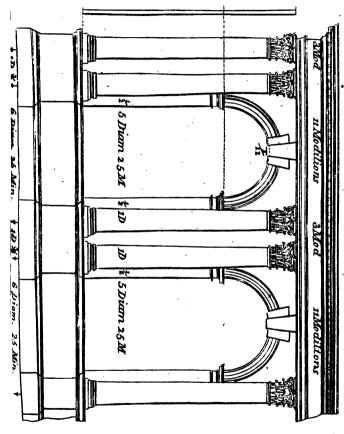
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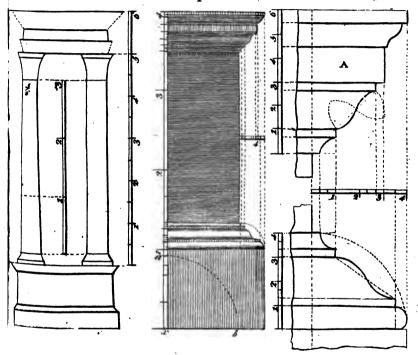


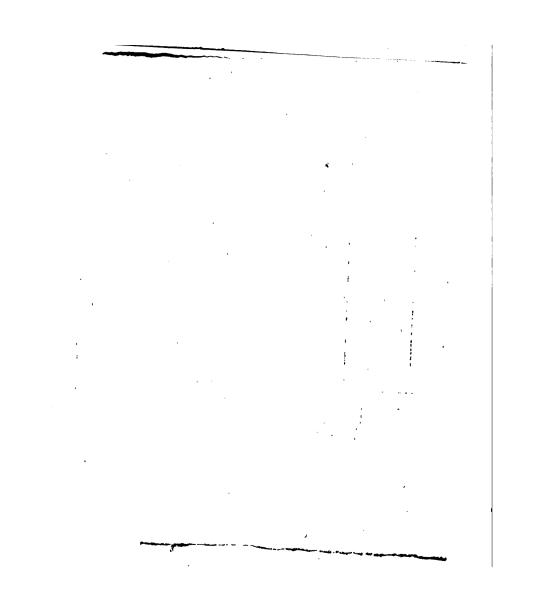
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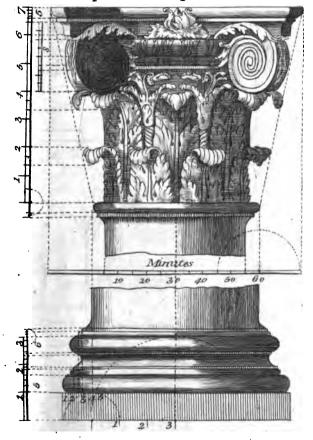
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Division of the General Parts of the Composite Order with the Pedestal at large. Pz. LVII.

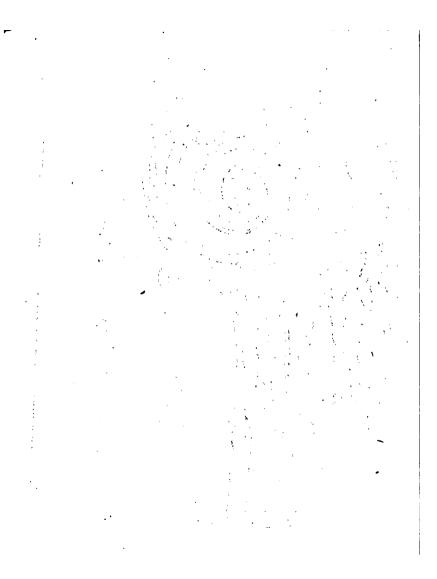


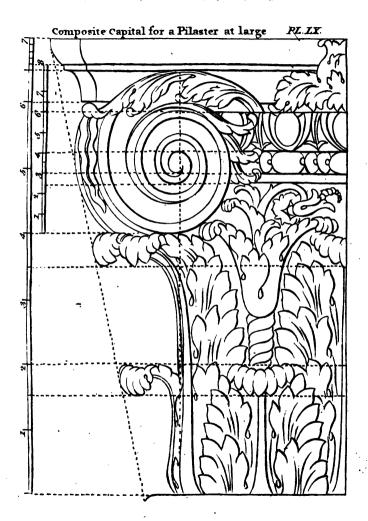


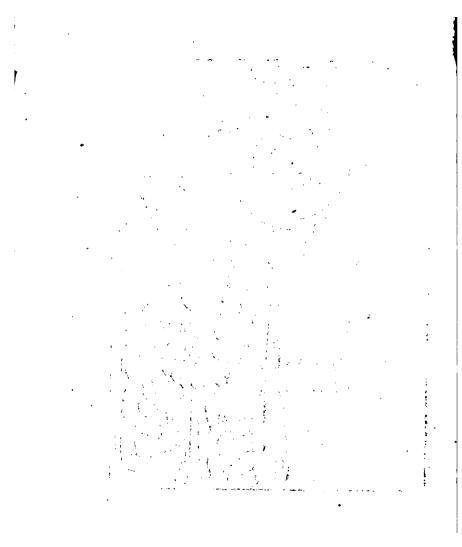


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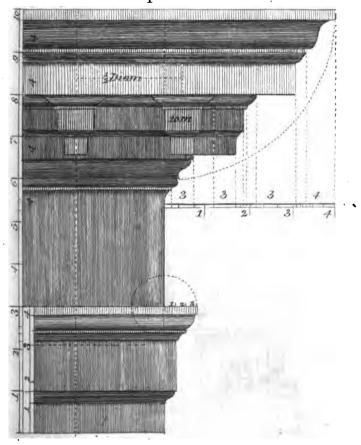
Composite Capital for a Cohumn at large PZ.ZIX.

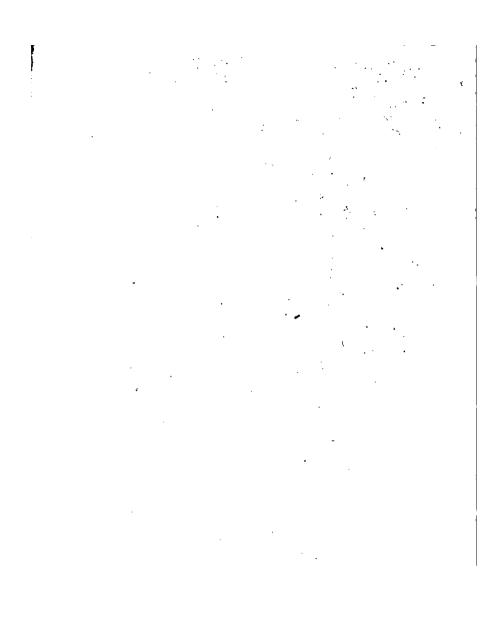






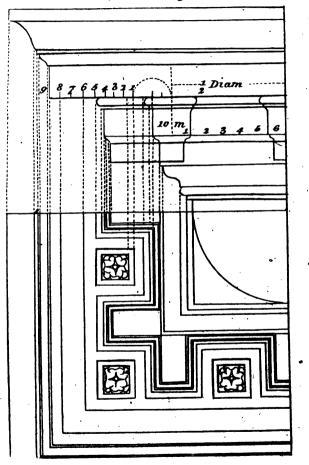
The Composite Entablature

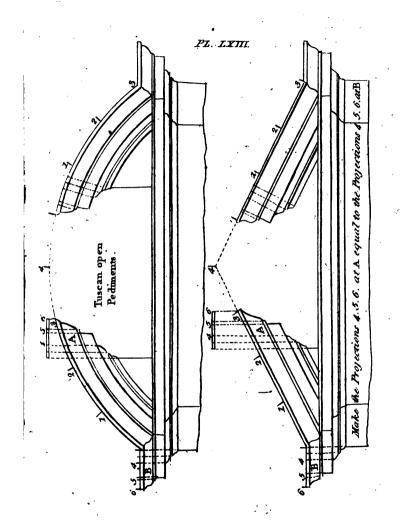


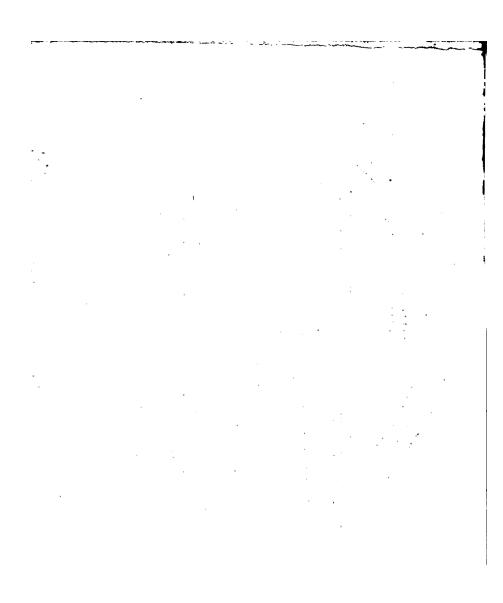


The Planceer of the Composite Cornice

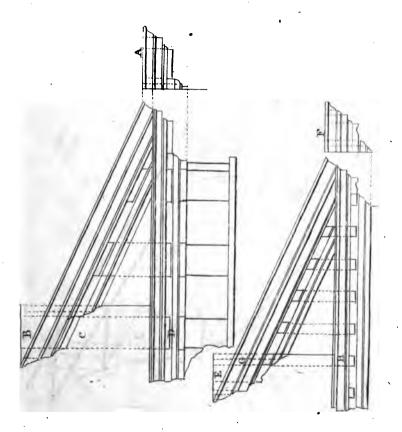
PULXII.



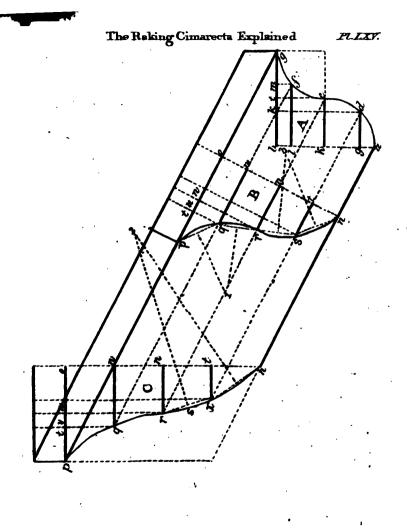


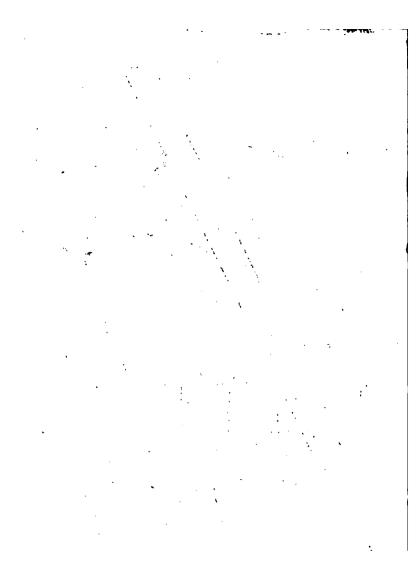


The Dorick Florick open Pediment Explaind. PL. LXIV.



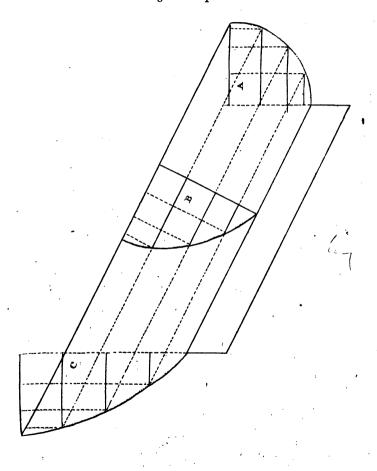
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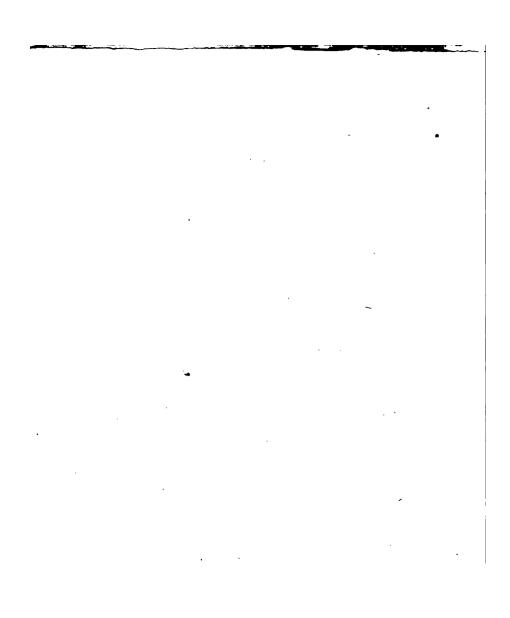


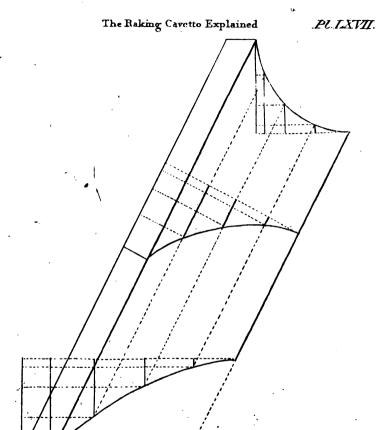


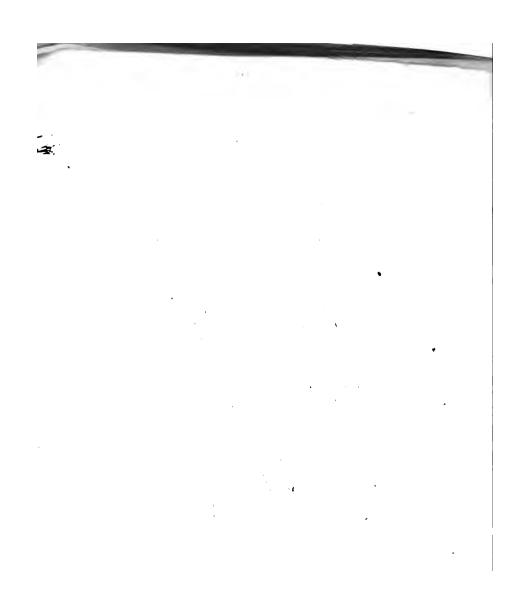
The Raking Ovolo Explained .

PL. LXVI.



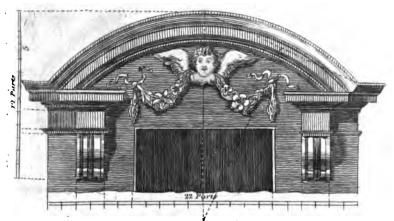




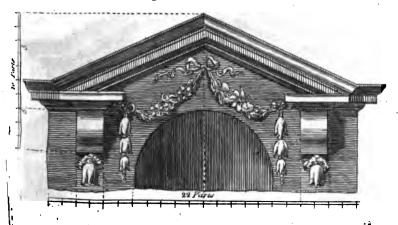


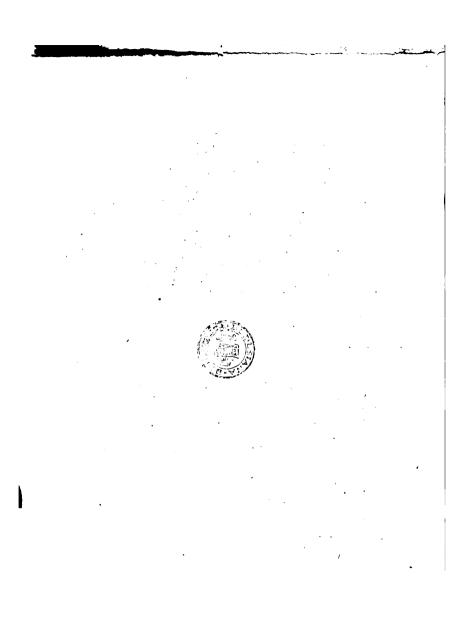
PLIXVIII. The Raking Cima reversa Explained

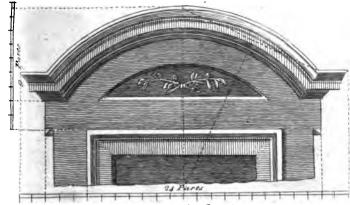




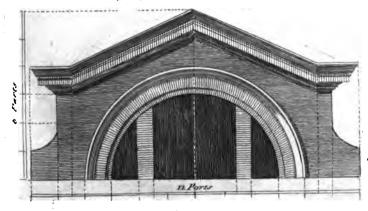
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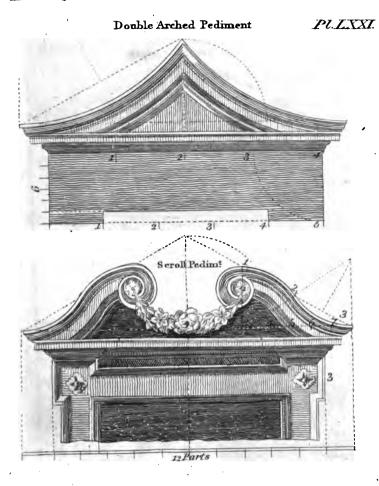




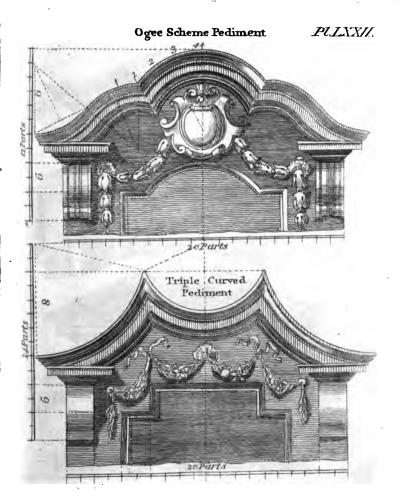
Pediments of Continued Connices.



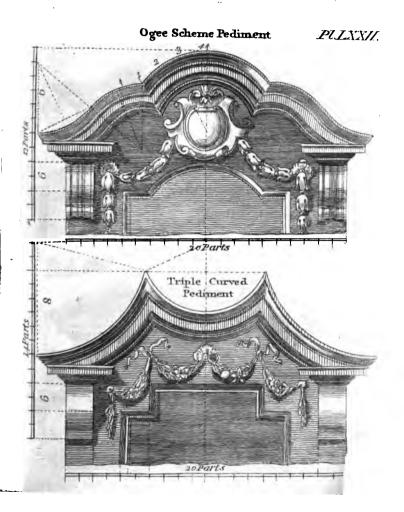
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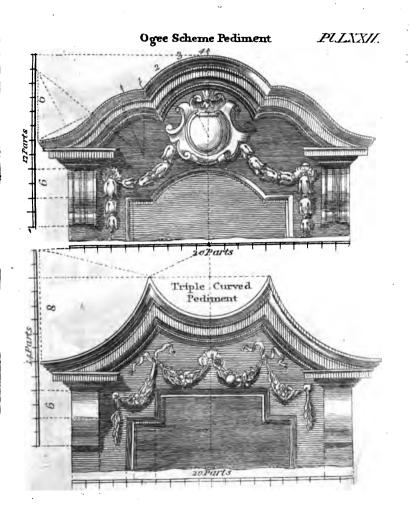


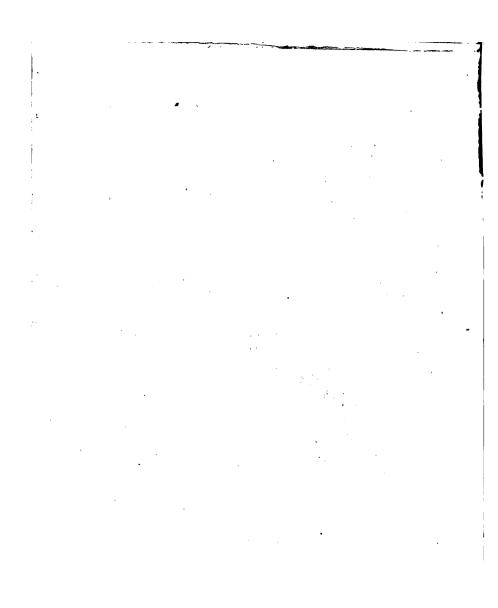
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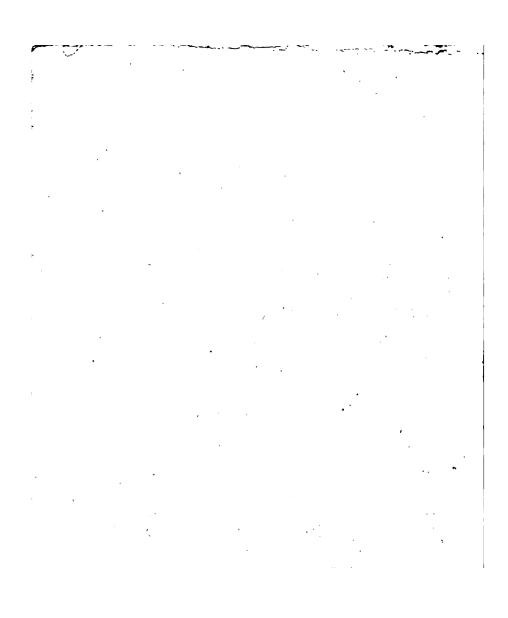
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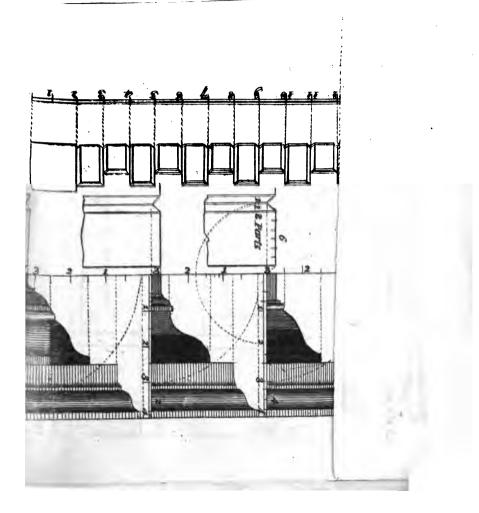


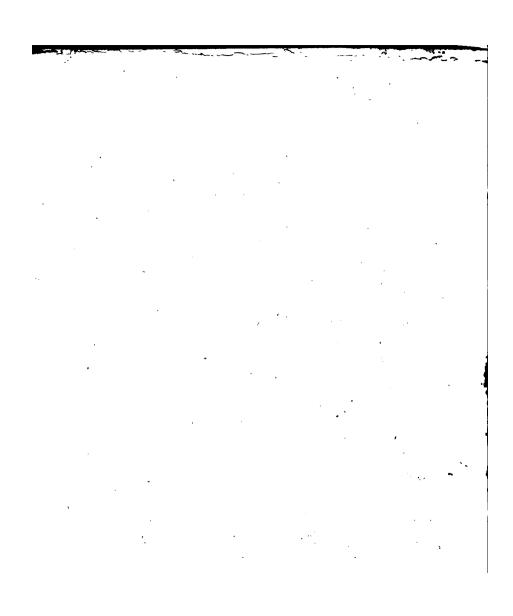


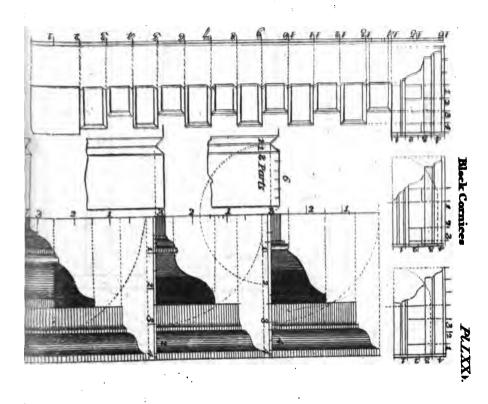










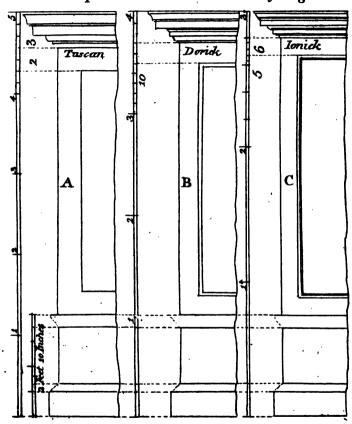


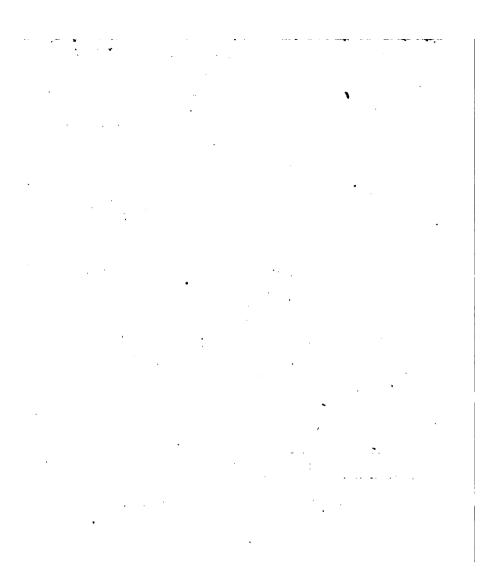
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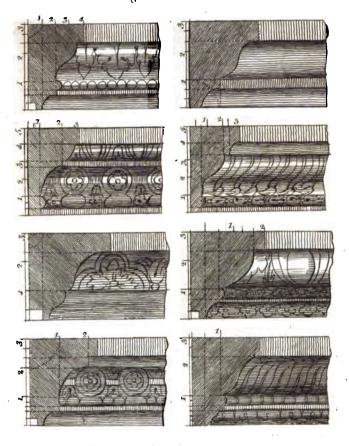
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To Proportion Cornices to Rooms of any Height PLLXXVI.





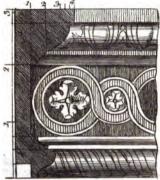


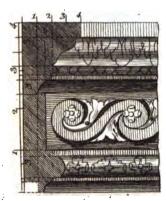
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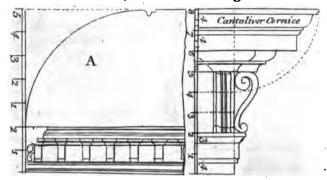


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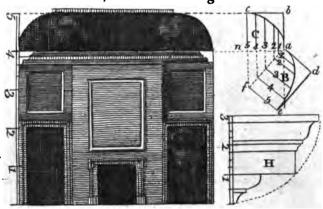
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A Cove 1/4 of the entire Height

PLLXXIX



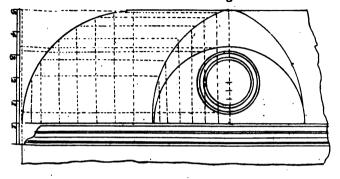
A Cove 1/6 of the entire Height

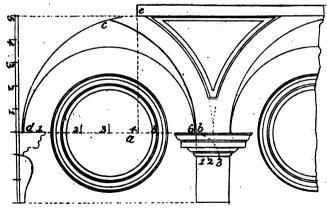


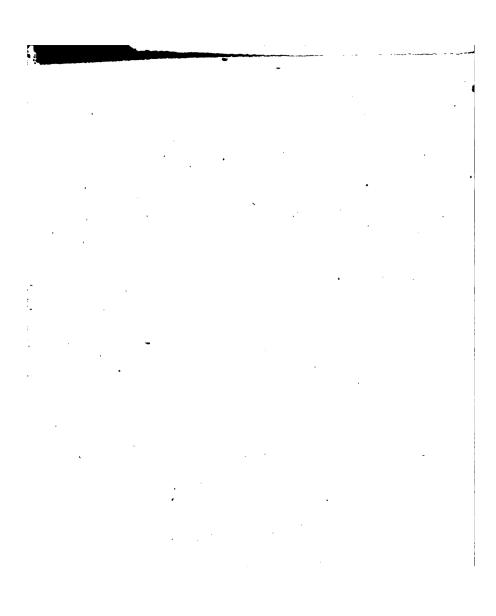
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Coves % of the entire Height

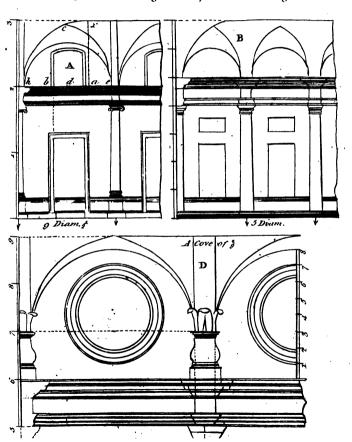








A Cove 3 of the entire Height A Cove 3 of the entire Height PL. LXXXI.



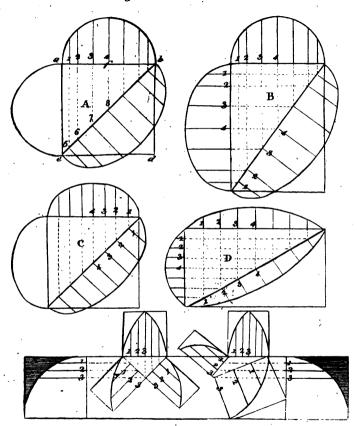
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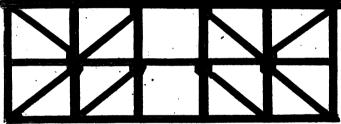
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Bearing 40 Feet in the Clear



50 Feet

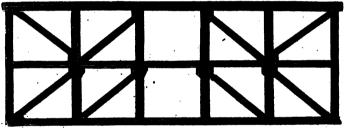


60 Feet

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Bearing 40 Feet in the Clear

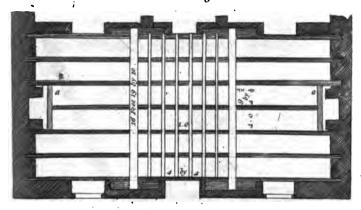


50 Feet

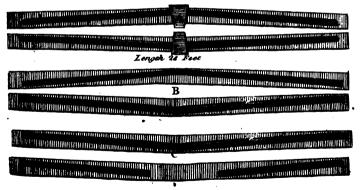


60 Feet

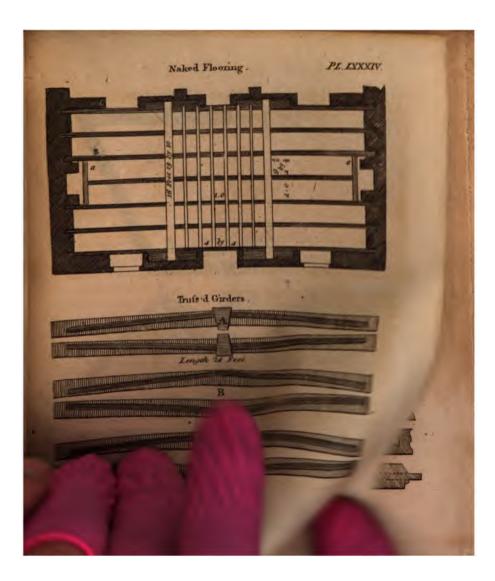
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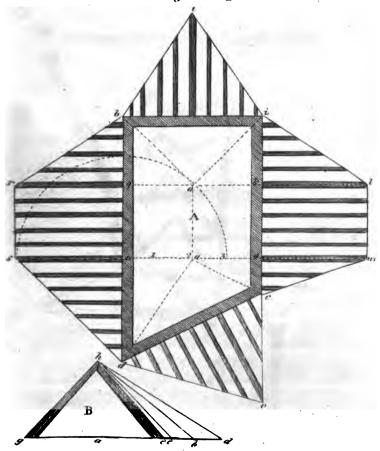
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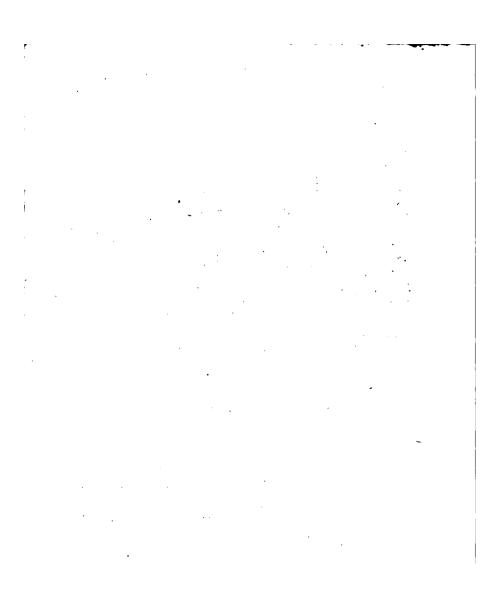
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The Lengths & Backs of Hip Rathers Explained PZ.JXXXV.

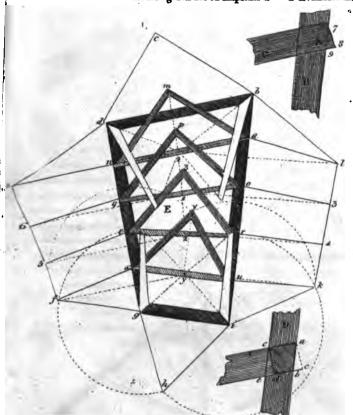
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A Roof in Ledgement Explained PL. ZXXXVI.





An Irregular Roof Explain'd PL. ZYXXVII.



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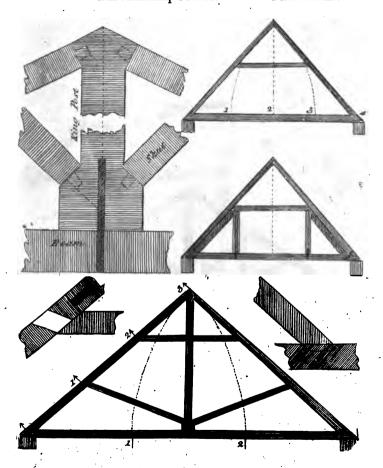
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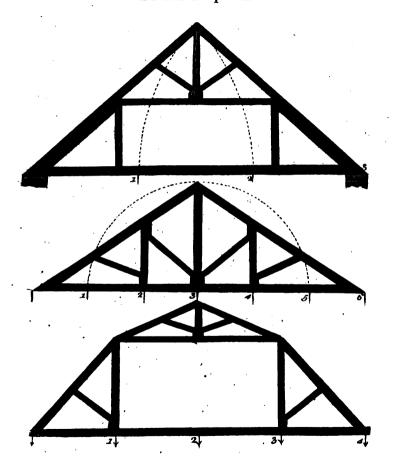
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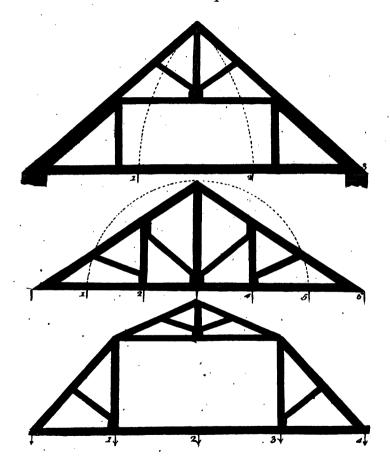
PL. ZXXXVIII.



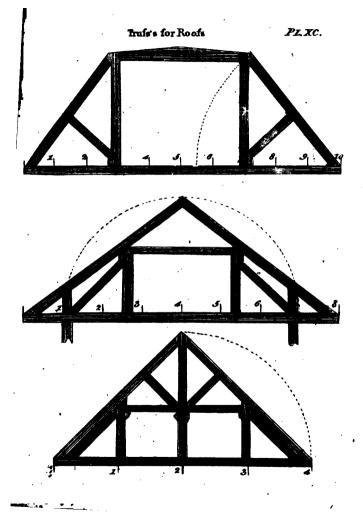
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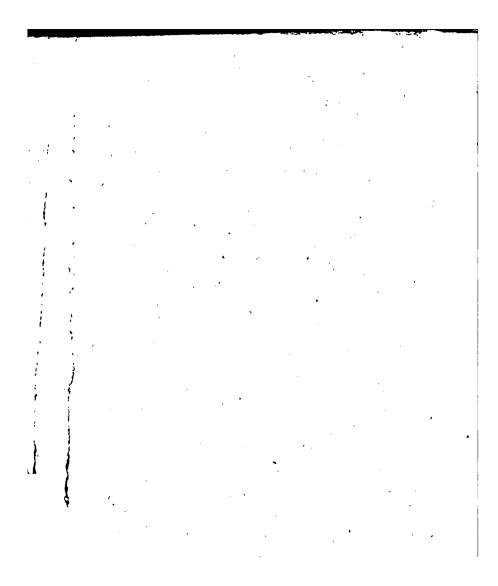


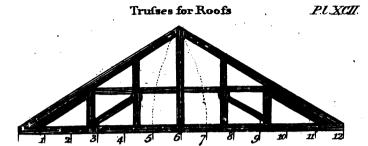
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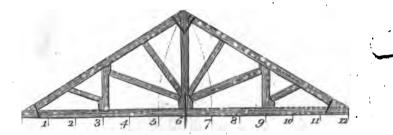


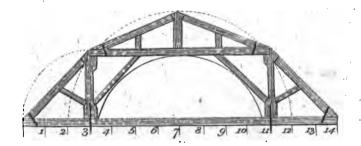


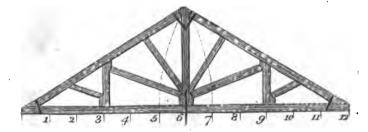


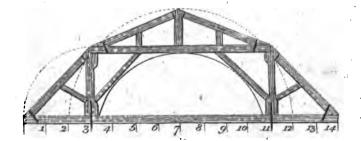


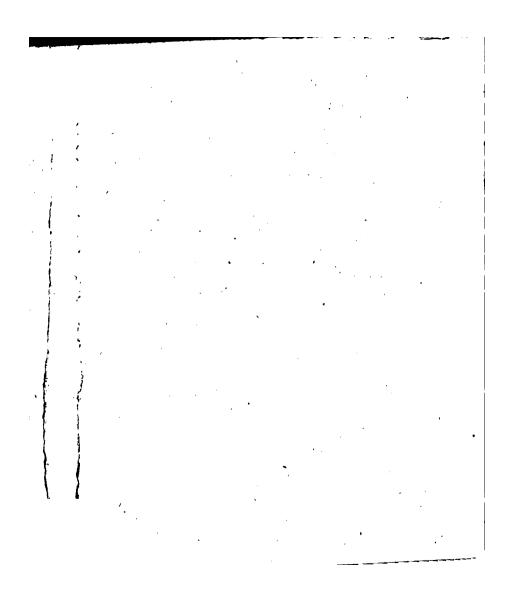


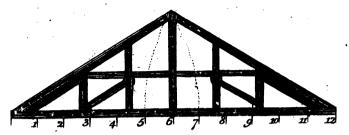


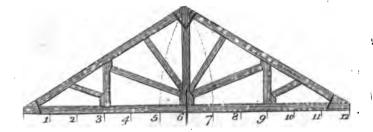


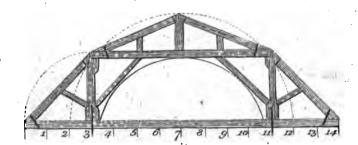




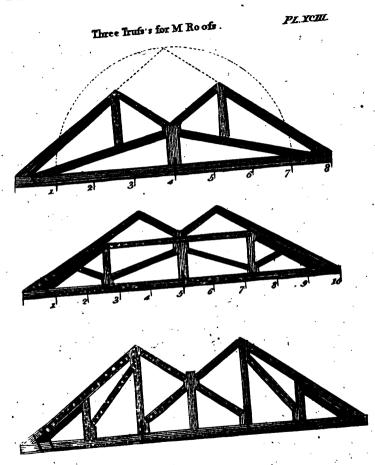


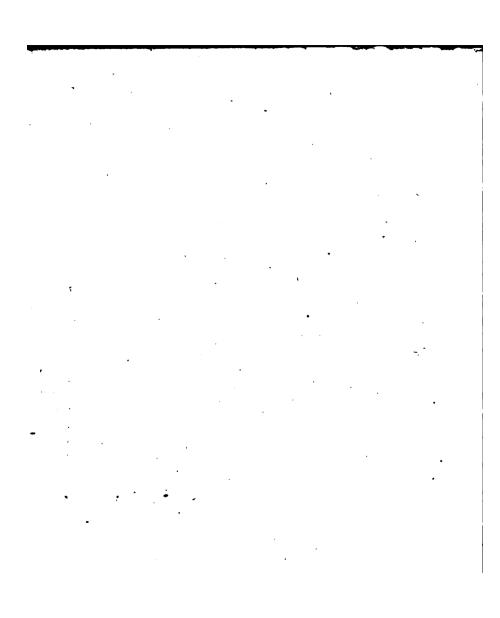






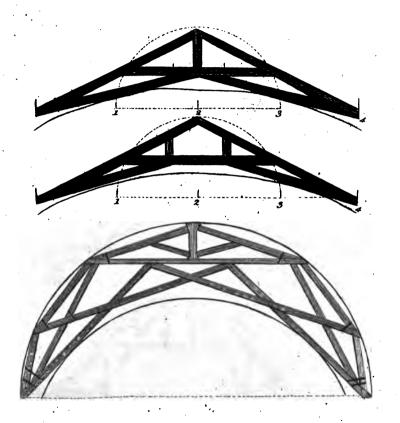
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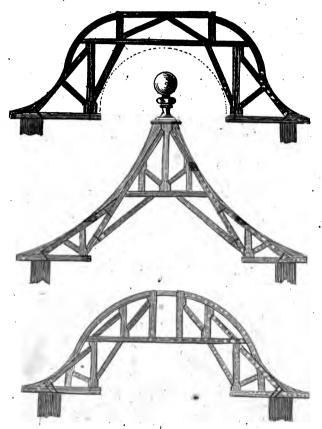
Truis's for Roofs over arch'd Ciellings

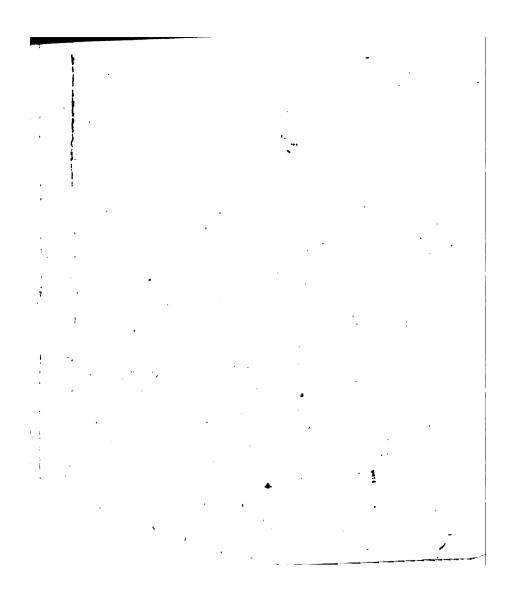
Pz.xciv.



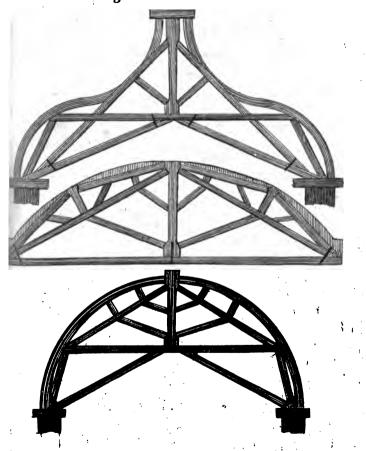
Trusses for Roofs to Pavilions

PLXCV.





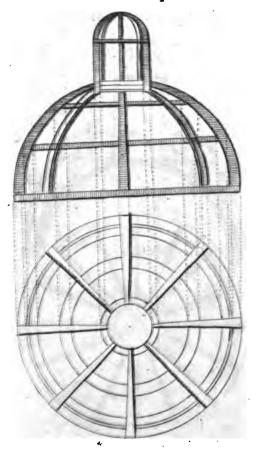
Truises for Ogee Scheme & Semicircular Domes PLXCII

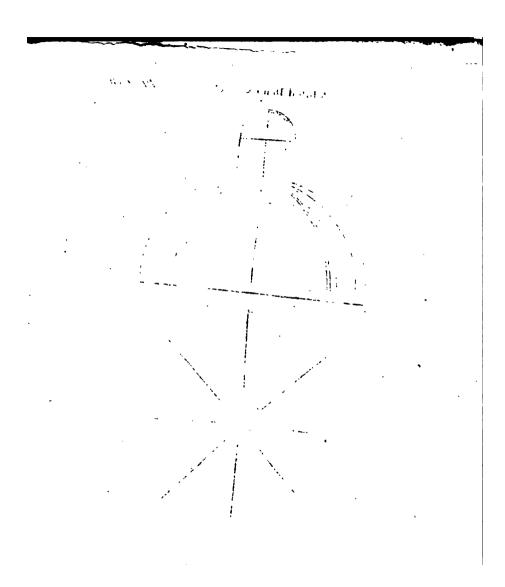


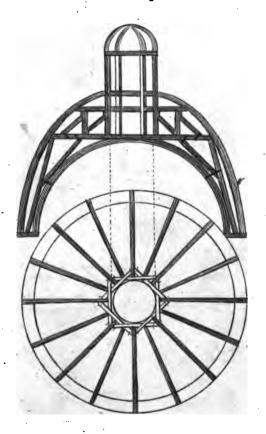
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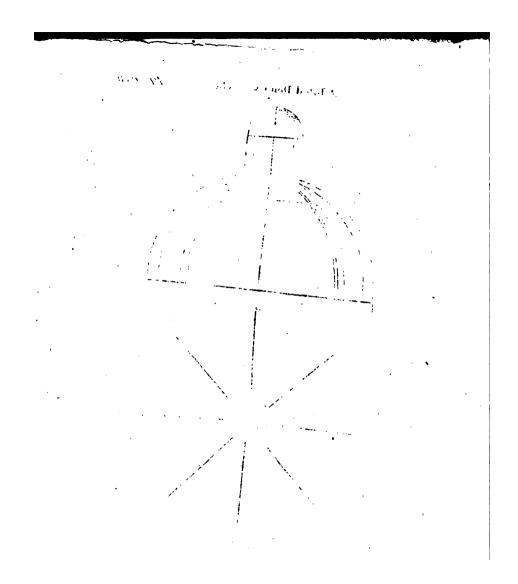
A Rib d Dome & Cupola

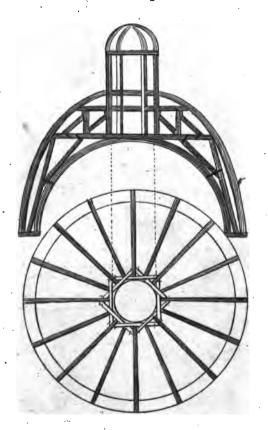
PLXCVII.

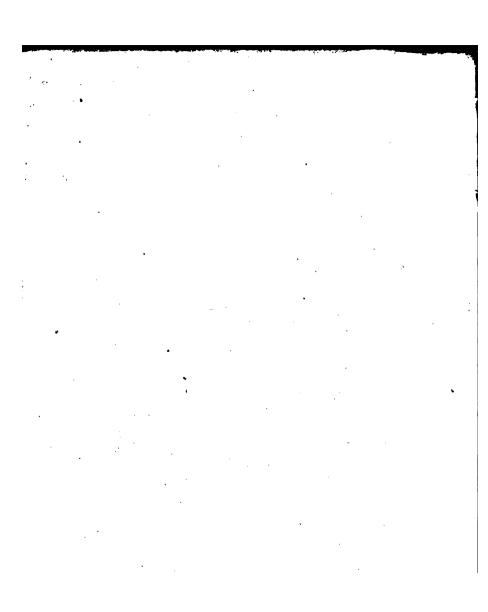


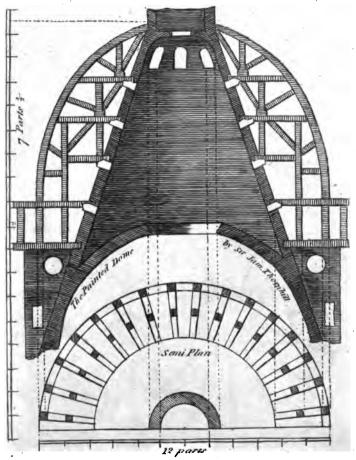






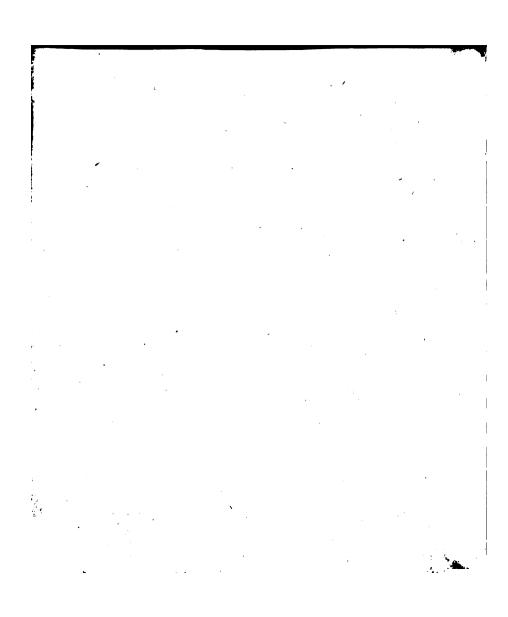


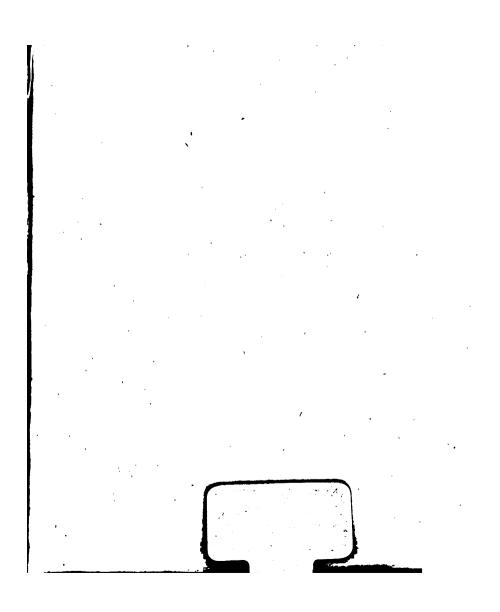












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